

Chemical Analysis Report

NW-DIST-2021-03-24-01

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

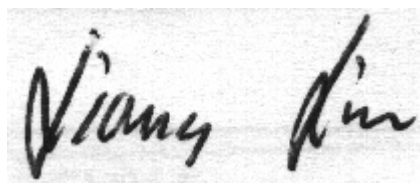
Event Description: **Santa Rosa Run**
Request ID: **RQ-2021-03-22-39**
Customer: **NW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
160 Government Center
Suite 208
Pensacola, FL 32502-5794
Attn: Cheryl Bunch

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Certified by: Liang Lin, Environmental Administrator

Date Certified: 15-APR-2021 12:38

A handwritten signature in black ink, appearing to read "Liang Lin", is shown on a light-colored background.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals, Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

**Sample Location: Discharge from Tiger Point Golf Course at
Maplewood Drive**

Collection Date/Time: 03/23/2021 10:40

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2233467	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P395459	
	EPA 300.0 Rev. 2.1	Chloride	19		mg Cl/L	P395585	
		Sulfate	7.3		mg SO4/L	P395587	
	SM 2120 B-2011	Color (true)	99		PCU	P395441	
	SM 2320 B-2011	Total Alkalinity	23		mg CaCO3/L	P395527	
	SM 2540 C-2011	TDS	97		mg/L	P395817	
	SM 2540 D-2011	TSS	3	I	mg/L	P395854	
	SM 4500 F-C-2011	Fluoride	0.035	I	mg F/L	P395529	
2233468	EPA 350.1 Rev. 2.0	Ammonia-N	0.29		mg N/L	P395910	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.93		mg N/L	P395789	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P395463	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P395544	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P395711	
2233469	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P395436	
2233500	EPA 8321B	Aldicarb	0.020	U	ug/L	P395359	
		Aldicarb Sulfone	0.0020	U	ug/L	P395359	
		Aldicarb Sulfoxide	0.0020	U	ug/L	P395359	
		Carbaryl	0.0020	U	ug/L	P395359	
		Carbofuran	0.0020	U	ug/L	P395359	
		3-Hydroxycarbofuran	0.0020	U	ug/L	P395359	
		Methiocarb	0.0020	U	ug/L	P395359	
		Methomyl	0.0020	U	ug/L	P395359	
		Oxamyl	0.0020	U	ug/L	P395359	
		Propoxur	0.0020	U	ug/L	P395359	
2233501		2,4-D	0.0050	I	ug/L	P395318	
		Acesulfame K	0.16	I	ug/L	P395510	MS
		2,4,5-T	0.0040	U	ug/L	P395318	
		AMPA	0.35	I	ug/L	P395510	
		Sucralose	5.0		ug/L	P395510	
		Acetaminophen	0.0080	UJ	ug/L	P395318	LCS
		Acetamiprid	0.0020	U	ug/L	P395318	
		Endothall	0.25	U	ug/L	P395510	
		Glufosinate	0.10	U	ug/L	P395510	
		Glyphosate	0.69		ug/L	P395510	
		Afidopyropen	0.0020	U	ug/L	P395318	
		Bentazon	0.0051		ug/L	P395318	
		Benzovindiflupyr	0.0020	U	ug/L	P395318	
		Carbamazepine	0.0049		ug/L	P395318	
		Clothianidin	0.0020	U	ug/L	P395318	
		Dinotefuran	0.0020	U	ug/L	P395318	
		Diuron	0.0020	U	ug/L	P395318	
		Fenuron	0.016	U	ug/L	P395318	

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2233501	EPA 8321B	Fluridone	8.0E-04	U	ug/L	P395318	
		Imazapyr	0.0047	I	ug/L	P395318	
		Hydrocodone	0.0020	U	ug/L	P395318	
		Ibuprofen	0.020	U	ug/L	P395318	
		Imidacloprid	0.0020	U	ug/L	P395318	
		Linuron	0.0040	U	ug/L	P395318	
		Mandestrobin	0.0020	U	ug/L	P395318	
		MCP	0.010		ug/L	P395318	
		Naproxen	0.0080	U	ug/L	P395318	
		Primidone	0.019		ug/L	P395318	
		Pyraclostrobin	0.0020	U	ug/L	P395318	
		Thiamethoxam	0.0020	U	ug/L	P395318	
		Tolfenpyrad	0.0020	U	ug/L	P395318	
		Triclopyr	0.0040	U	ug/L	P395318	
2233505	EPA 8270E	Aldrin	0.81	U	ng/L	P395389	
		Dieldrin	0.43	U	ng/L	P395389	
		Alpha-BHC	2.2	U	ng/L	P395389	
		Kepone**	6.0	U	ng/L	P395389	
		Alpha-Chlordane	1.1	U	ng/L	P395389	
		Beta-BHC	8.7	U	ng/L	P395389	
		Beta-Cyfluthrin**	16	U	ng/L	P395389	
		Bifenthrin**	4.3	U	ng/L	P395389	
		Delta-BHC	8.7	U	ng/L	P395389	
		Gamma-BHC	8.7	U	ng/L	P395389	
		Chlorothalonil	2.2	U	ng/L	P395389	
		Cis-Nonachlor**	1.1	U	ng/L	P395389	
		Cypermethrin	22	U	ng/L	P395389	
		Dacthal**	1.1	U	ng/L	P395389	
		DDD-p,p'	5.4	U	ng/L	P395389	
		DDE-p,p'	5.4	U	ng/L	P395389	
		DDT-p,p'	6.5	U	ng/L	P395389	
		Deltamethrin**	22	U	ng/L	P395389	
		Dicofol	32	U	ng/L	P395389	
		Endosulfan I	4.3	U	ng/L	P395389	
		Endosulfan II	4.3	U	ng/L	P395389	
		Endosulfan Sulfate	2.2	U	ng/L	P395389	
		Endrin	2.2	U	ng/L	P395389	
		Endrin Aldehyde	2.2	U	ng/L	P395389	
		Endrin Ketone	2.2	U	ng/L	P395389	
		Ethalfuralin**	3.2	U	ng/L	P395389	
		Gamma-Chlordane	1.1	U	ng/L	P395389	
		Dichlobenil**	2.2	U	ng/L	P395389	
		Esfenvalerate**	22	U	ng/L	P395389	
		Fenprothrin**	11	U	ng/L	P395389	
		Heptachlor	1.6	U	ng/L	P395389	

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2233505	EPA 8270E	Heptachlor Epoxide	2.2	U	ng/L	P395389	
		Hexachlorobenzene	2.2	U	ng/L	P395389	
		Lambda-Cyhalothrin**	16	U	ng/L	P395389	
		Methoxychlor	4.3	U	ng/L	P395389	
		Mirex	2.2	U	ng/L	P395389	
		MGK-264**	3.2	U	ng/L	P395389	
		Permethrin	11	U	ng/L	P395389	
		Phenothrin**	32	U	ng/L	P395389	
		Piperonyl Butoxide**	1.6	U	ng/L	P395389	
		Prallethrin**	27	U	ng/L	P395389	
		Tau-Fluvalinate**	3.8	U	ng/L	P395389	
		Tetramethrin**	8.7	U	ng/L	P395389	
		Trans-Nonachlor**	1.1	U	ng/L	P395389	
		Triclosan Methyl**	1.1	U	ng/L	P395389	
		Trifluralin	2.7	U	ng/L	P395389	
	EPA 8276	Chlordane	5.4	U	ng/L	P395389	
		Toxaphene	32	U	ng/L	P395389	
		Acetochlor	0.25	U	ng/L	P395643	
2233506	EPA 8270E	Alachlor	0.25	U	ng/L	P395643	
		Ametryn	0.60	U	ng/L	P395643	
		Atrazine	1.4		ng/L	P395643	
		Atrazine Desethyl	1.5	U	ng/L	P395643	
		Azinphos Methyl	2.0	U	ng/L	P395643	
		Azoxystrobin**	0.50	UJ	ng/L	P395643	RPD
		Bromacil	0.50	U	ng/L	P395643	
		Butylate	0.40	U	ng/L	P395643	
		Caffeine**	7.5	U	ng/L	P395643	
		Carbophenothion	0.50	U	ng/L	P395643	
		Carfentrazone Ethyl**	0.10	U	ng/L	P395643	
		Chlorpyrifos Ethyl	0.25	U	ng/L	P395643	
		Chlorpyrifos Methyl	0.050	U	ng/L	P395643	
		Cyanazine	3.2	U	ng/L	P395643	
		Demeton	1.5	U	ng/L	P395643	
		Diazinon	0.12	U	ng/L	P395643	
		Difenoconazole**	0.60	UJ	ng/L	P395643	RPD
		Dimethenamid**	0.10	U	ng/L	P395643	
		Disulfoton	0.50	U	ng/L	P395643	
		Dithiopyr**	0.18	I	ng/L	P395643	
		EPTC	1.2	U	ng/L	P395643	
		Ethion	0.15	U	ng/L	P395643	
		Ethoprop	0.10	U	ng/L	P395643	
		Fenamiphos	0.50	U	ng/L	P395643	
		Fenbuconazole**	0.12	UJ	ng/L	P395643	LCS, MS
		Fipronil	2.6		ng/L	P395643	
		Fipronil Desulfinyll**	0.60		ng/L	P395643	

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2233506	EPA 8270E	Fipronil Sulfide	13		ng/L	P395643	
		Fipronil Sulfone	15		ng/L	P395643	
		Fluazifop-P-butyl**	0.10	U	ng/L	P395643	
		Fludioxonil**	0.12	U	ng/L	P395643	
		Flumioxazin**	1.8	UJ	ng/L	P395643	RPD
		Flutolanil**	0.10	U	ng/L	P395643	
		Fluxapyroxad**	0.10	U	ng/L	P395643	
		Fonofos	0.20	U	ng/L	P395643	
		Hexazinone	0.50	U	ng/L	P395643	
		Imazalil**	0.75	U	ng/L	P395643	
		Iprodione**	0.60	U	ng/L	P395643	
		Malathion	0.35	U	ng/L	P395643	
		Metalaxyl	0.75	U	ng/L	P395643	
		Metolachlor	0.35	U	ng/L	P395643	
		Metribuzin	3.2	U	ng/L	P395643	
		Mevinphos	1.0	U	ng/L	P395643	
		Molinate	0.30	U	ng/L	P395643	
		Myclobutanil**	0.25	U	ng/L	P395643	
		Naled**	1.5	U	ng/L	P395643	
		Norflurazon	0.71	I	ng/L	P395643	
		Oxadiazon	6.4	V	ng/L	P395643	
		Oxyfluorfen**	0.15	U	ng/L	P395643	
		Parathion Ethyl	0.25	U	ng/L	P395643	
		Parathion Methyl	0.55	U	ng/L	P395643	
		Pendimethalin	1.0	U	ng/L	P395643	
		Phorate	0.52	U	ng/L	P395643	
		Prodiamine**	0.18	U	ng/L	P395643	
		Prometon	0.90	U	ng/L	P395643	
		Prometryn	0.20	U	ng/L	P395643	
		Pronamide**	0.15	U	ng/L	P395643	
		Propiconazole**	0.50	U	ng/L	P395643	
		Pyriproxyfen**	0.12	U	ng/L	P395643	
		Simazine	0.50	U	ng/L	P395643	
		Sulfentrazone**	16		ng/L	P395643	
		Tebuconazole**	0.50	U	ng/L	P395643	
		Terbufos	0.10	U	ng/L	P395643	
		Terbuthylazine	0.42	U	ng/L	P395643	
2233508	EPA 200.7 Rev. 4.4	Barium	6.8		ug/L	P395438	
		Calcium	8.26		mg/L	P395438	
		Iron	350		ug/L	P395438	
		Magnesium	2.56		mg/L	P395438	
		Manganese	11.6		ug/L	P395438	
		Potassium	2.4		mg/L	P395438	
		Sodium	14.4		mg/L	P395438	
		Zinc	5.0	U	ug/L	P395438	

Field ID: G4NW0211

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2233508	EPA 200.8 Rev. 5.4	Aluminum	264		ug/L	P395438	
		Antimony	0.050	U	ug/L	P395438	
		Arsenic	2.45		ug/L	P395438	
		Beryllium	0.010	U	ug/L	P395438	
		Boron**	53.7		ug/L	P395438	
		Cadmium	0.020	U	ug/L	P395438	
		Chromium	0.64	I	ug/L	P395438	
		Copper	0.50	I	ug/L	P395438	
		Lead	0.20	U	ug/L	P395438	
		Nickel	0.56	I	ug/L	P395438	
		Selenium	0.20	I	ug/L	P395438	
		Silver	0.010	U	ug/L	P395438	
		Thallium	0.10	U	ug/L	P395438	
	SM 2340B	Hardness	31.1		mg/L	P395438	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

EPA 8270E: V - Due to the presence of oxadiazon in both the Method Blank and the sample. Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Williams Creek upstream of Hwy 98

Collection Date/Time: 03/23/2021 12:30

Field ID: G4NW0531

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2233470	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P395459	
	EPA 300.0 Rev. 2.1	Chloride	36		mg Cl/L	P395585	
		Sulfate	8.7		mg SO4/L	P395587	
	SM 2120 B-2011	Color (true)	65		PCU	P395441	
	SM 2320 B-2011	Total Alkalinity	10		mg CaCO3/L	P395527	
	SM 2540 C-2011	TDS	111		mg/L	P395817	
	SM 2540 D-2011	TSS	2	I	mg/L	P395854	
	SM 4500 F-C-2011	Fluoride	0.035	U	mg F/L	P395529	
2233471	EPA 350.1 Rev. 2.0	Ammonia-N	0.021		mg N/L	P395910	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P395789	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.50		mg N/L	P395464	
	EPA 365.1 Rev. 2.0	Total-P	0.47		mg P/L	P395544	
	SM 5310 B-2011	Organic Carbon	7.4		mg C/L	P395711	
2233472	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.42		mg P/L	P395436	
2233502	EPA 8321B	2,4-D	0.0020	U	ug/L	P395318	
		Acesulfame K	0.13	I	ug/L	P395510	MS
		2,4,5-T	0.0040	U	ug/L	P395318	
		AMPA	0.10	U	ug/L	P395510	
		Sucralose	20		ug/L	P395510	
		Acetaminophen	0.0080	UJ	ug/L	P395318	LCS
		Acetamiprid	0.0020	U	ug/L	P395318	
		Endothall	0.25	U	ug/L	P395510	
		Glufosinate	0.10	U	ug/L	P395510	
		Glyphosate	0.10	U	ug/L	P395510	
		Afidopyropen	0.0020	U	ug/L	P395318	
		Bentazon	8.0E-04	U	ug/L	P395318	
		Benzovindiflupyr	0.0020	U	ug/L	P395318	
		Carbamazepine	0.015		ug/L	P395318	
		Clothianidin	0.0020	U	ug/L	P395318	
		Dinotefuran	0.013		ug/L	P395318	
		Diuron	0.0020	U	ug/L	P395318	
		Fenuron	0.016	U	ug/L	P395318	
		Fluridone	8.0E-04	U	ug/L	P395318	
		Imazapyr	0.0040	U	ug/L	P395318	
		Hydrocodone	0.0020	U	ug/L	P395318	
		Ibuprofen	0.020	U	ug/L	P395318	
		Imidacloprid	0.044		ug/L	P395318	
		Linuron	0.0040	U	ug/L	P395318	
		Mandestrobin	0.0020	U	ug/L	P395318	
		MCP	0.0020	U	ug/L	P395318	
		Naproxen	0.0080	U	ug/L	P395318	
		Primidone	0.039		ug/L	P395318	
		Pyraclostrobin	0.0020	U	ug/L	P395318	

Field ID: G4NW0531

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2233502	EPA 8321B	Thiamethoxam	0.0020	U	ug/L	P395318	
		Tolfenpyrad	0.0020	U	ug/L	P395318	
		Triclopyr	0.0040	U	ug/L	P395318	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Dean Creek, West Head at Natalie Lane

Collection Date/Time: 03/23/2021 12:00

Field ID: G4NW0278

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2233503	EPA 8321B	2,4-D	0.0020	U	ug/L	P395318	
		Acesulfame K	0.10	U	ug/L	P395510	MS
		2,4,5-T	0.0040	U	ug/L	P395318	
		AMPA	0.10	U	ug/L	P395510	
		Sucralose	0.031	I	ug/L	P395510	
		Acetaminophen	0.0080	UJ	ug/L	P395318	LCS
		Acetamiprid	0.0020	U	ug/L	P395318	
		Endothall	0.25	U	ug/L	P395510	
		Glufosinate	0.10	U	ug/L	P395510	
		Glyphosate	0.10	U	ug/L	P395510	
		Afidopyropen	0.0020	U	ug/L	P395318	
		Bentazon	8.0E-04	U	ug/L	P395318	
		Benzovindiflupyr	0.0020	U	ug/L	P395318	
		Carbamazepine	8.0E-04	U	ug/L	P395318	
		Clothianidin	0.0020	U	ug/L	P395318	
		Dinotefuran	0.0020	U	ug/L	P395318	
		Diuron	0.0020	U	ug/L	P395318	
		Fenuron	0.016	U	ug/L	P395318	
		Fluridone	8.0E-04	U	ug/L	P395318	
		Imazapyr	0.0040	U	ug/L	P395318	
		Hydrocodone	0.0020	U	ug/L	P395318	
		Ibuprofen	0.020	U	ug/L	P395318	
		Imidacloprid	0.0029	I	ug/L	P395318	
		Linuron	0.0040	U	ug/L	P395318	
		Mandestrobin	0.0020	U	ug/L	P395318	
		MCPP	0.0020	U	ug/L	P395318	
		Naproxen	0.0080	U	ug/L	P395318	
		Primidone	0.0040	U	ug/L	P395318	
		Pyraclostrobin	0.0020	U	ug/L	P395318	
		Thiamethoxam	0.0020	U	ug/L	P395318	
		Tolfenpyrad	0.0020	U	ug/L	P395318	
		Triclopyr	0.0040	U	ug/L	P395318	

Ref. Method and Comment:

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Sample Location: Tom King Creek

Collection Date/Time: 03/23/2021 11:35

Field ID: G4NW0193

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2233504	EPA 8321B	2,4-D	0.0020	U	ug/L	P395318	
		Acesulfame K	0.82		ug/L	P395510	MS
		2,4,5-T	0.0040	U	ug/L	P395318	
		AMPA	0.10	U	ug/L	P395510	
		Sucralose	4.5		ug/L	P395510	
		Acetaminophen	0.0080	UJ	ug/L	P395318	LCS
		Acetamiprid	0.0020	U	ug/L	P395318	
		Endothall	0.25	U	ug/L	P395510	
		Glufosinate	0.10	U	ug/L	P395510	
		Glyphosate	0.10	U	ug/L	P395510	
		Afidopyropen	0.0020	U	ug/L	P395318	
		Bentazon	0.0016	I	ug/L	P395318	
		Benzovindiflupyr	0.0020	U	ug/L	P395318	
		Carbamazepine	0.0011	I	ug/L	P395318	
		Clothianidin	0.050		ug/L	P395318	
		Dinotefuran	0.0045	I	ug/L	P395318	
		Diuron	0.0020	U	ug/L	P395318	
		Fenuron	0.016	U	ug/L	P395318	
		Fluridone	8.0E-04	U	ug/L	P395318	
		Imazapyr	0.0040	U	ug/L	P395318	
		Hydrocodone	0.0020	U	ug/L	P395318	
		Ibuprofen	0.020	U	ug/L	P395318	
		Imidacloprid	0.056		ug/L	P395318	
		Linuron	0.0040	U	ug/L	P395318	
		Mandestrobin	0.0020	U	ug/L	P395318	
		MCPP	0.0020	U	ug/L	P395318	
		Naproxen	0.0080	U	ug/L	P395318	
		Primidone	0.0081	I	ug/L	P395318	
		Pyraclostrobin	0.0020	U	ug/L	P395318	
		Thiamethoxam	0.0020	U	ug/L	P395318	
		Tolfenpyrad	0.0020	U	ug/L	P395318	
		Triclopyr	0.0040	U	ug/L	P395318	

Ref. Method and Comment:

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P395459

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P395438

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P395438

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P395585

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P395587

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P395910

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P395789

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P395463

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P395464

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P395544

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P395436

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8270E
Batch ID: P395389

Component	Result	Code	Units
Aldrin	0.75	U	ng/L
Alpha-BHC	2.0	U	ng/L
Alpha-Chlordane	1.0	U	ng/L
Beta-BHC	8.0	U	ng/L
Beta-Cyfluthrin	15	U	ng/L
Bifenthrin	4.0	U	ng/L
Chlorothalonil	2.0	U	ng/L
Cis-Nonachlor	1.0	U	ng/L
Cypermethrin	20	U	ng/L
Dacthal	1.0	U	ng/L
DDD-p,p'	5.0	U	ng/L
DDE-p,p'	5.0	U	ng/L
DDT-p,p'	6.0	U	ng/L
Delta-BHC	8.0	U	ng/L
Deltamethrin	20	U	ng/L
Dichlobenil	2.0	U	ng/L
Dicofol	30	U	ng/L
Dieldrin	0.40	U	ng/L
Endosulfan I	4.0	U	ng/L
Endosulfan II	4.0	U	ng/L
Endosulfan Sulfate	2.0	U	ng/L
Endrin	2.0	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P395389

Component	Result	Code	Units
Endrin Aldehyde	2.0	U	ng/L
Endrin Ketone	2.0	U	ng/L
Esfenvalerate	20	U	ng/L
Ethalfuralin	3.0	U	ng/L
Fenpropathrin	10	U	ng/L
Gamma-BHC	8.0	U	ng/L
Gamma-Chlordane	1.0	U	ng/L
Heptachlor	1.5	U	ng/L
Heptachlor Epoxide	2.0	U	ng/L
Hexachlorobenzene	2.0	U	ng/L
Kepone	5.5	U	ng/L
Lambda-Cyhalothrin	15	U	ng/L
Methoxychlor	4.0	U	ng/L
MGK-264	3.0	U	ng/L
Mirex	2.0	U	ng/L
Permethrin	10	U	ng/L
Phenothrin	30	U	ng/L
Piperonyl Butoxide	1.5	U	ng/L
Prallethrin	25	U	ng/L
Tau-Fluvalinate	3.5	U	ng/L
Tetramethrin	8.0	U	ng/L
Trans-Nonachlor	1.0	U	ng/L
Triclosan Methyl	1.0	U	ng/L
Trifluralin	2.5	U	ng/L

Reference Method: EPA 8270E

Batch ID: P395643

Component	Result	Code	Units
Acetochlor	0.25	U	ng/L
Alachlor	0.25	U	ng/L
Ametryn	0.60	U	ng/L
Atrazine	0.25	U	ng/L
Atrazine Desethyl	1.5	U	ng/L
Azinphos Methyl	2.0	U	ng/L
Azoxystrobin	0.50	U	ng/L
Bromacil	0.50	U	ng/L
Butylate	0.40	U	ng/L
Caffeine	7.5	U	ng/L
Carbophenothion	0.50	U	ng/L
Carfentrazone Ethyl	0.10	U	ng/L
Chlorpyrifos Ethyl	0.25	U	ng/L
Chlorpyrifos Methyl	0.050	U	ng/L
Cyanazine	3.2	U	ng/L
Demeton	1.5	U	ng/L
Diazinon	0.12	U	ng/L
Difenoconazole	0.60	U	ng/L
Dimethenamid	0.10	U	ng/L
Disulfoton	0.50	U	ng/L
Dithiopyr	0.18	U	ng/L
EPTC	1.2	U	ng/L
Ethion	0.15	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8270E

Batch ID: P395643

Component	Result	Code	Units
Ethoprop	0.10	U	ng/L
Fenamiphos	0.50	U	ng/L
Fenbuconazole	0.12	U	ng/L
Fipronil	0.25	U	ng/L
Fipronil Desulfinyl	0.12	U	ng/L
Fipronil Sulfide	0.15	U	ng/L
Fipronil Sulfone	0.15	U	ng/L
Fluazifop-P-butyl	0.10	U	ng/L
Fludioxonil	0.12	U	ng/L
Flumioxazin	1.8	U	ng/L
Flutolanil	0.10	U	ng/L
Fluxapyroxad	0.10	U	ng/L
Fonofos	0.20	U	ng/L
Hexazinone	0.50	U	ng/L
Imazalil	0.75	U	ng/L
Iprodione	0.60	U	ng/L
Malathion	0.35	U	ng/L
Metalaxyl	0.75	U	ng/L
Metolachlor	0.35	U	ng/L
Metribuzin	3.2	U	ng/L
Mevinphos	1.0	U	ng/L
Molinate	0.30	U	ng/L
Myclobutanil	0.25	U	ng/L
Naled	1.5	U	ng/L
Norflurazon	0.50	U	ng/L
Oxadiazon	0.69	I	ng/L
Oxyfluorfen	0.15	U	ng/L
Parathion Ethyl	0.25	U	ng/L
Parathion Methyl	0.55	U	ng/L
Pendimethalin	1.0	U	ng/L
Phorate	0.52	U	ng/L
Prodiamine	0.18	U	ng/L
Prometon	0.90	U	ng/L
Prometryn	0.20	U	ng/L
Pronamide	0.15	U	ng/L
Propiconazole	0.50	U	ng/L
Pyriproxyfen	0.12	U	ng/L
Simazine	0.50	U	ng/L
Sulfentrazone	0.50	U	ng/L
Tebuconazole	0.50	U	ng/L
Terbufos	0.10	U	ng/L
Terbutylazine	0.42	U	ng/L

Reference Method: EPA 8276

Batch ID: P395389

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B

Batch ID: P395318

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
2,4,5-T	0.0040	U	ug/L
Acetaminophen	0.030	I	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: EPA 8321B

Batch ID: P395359

Component	Result	Code	Units
3-Hydroxycarbofuran	0.0020	U	ug/L
Aldicarb	0.020	U	ug/L
Aldicarb Sulfone	0.0020	U	ug/L
Aldicarb Sulfoxide	0.0020	U	ug/L
Carbaryl	0.0020	U	ug/L
Carbofuran	0.0020	U	ug/L
Methiocarb	0.0020	U	ug/L
Methomyl	0.0020	U	ug/L
Oxamyl	0.0020	U	ug/L
Propoxur	0.0020	U	ug/L

Reference Method: EPA 8321B

Batch ID: P395510

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P395441

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P395527

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P395817

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P395854

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P395529

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P395711

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P395438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	103		P	80 - 120
Calcium	106		P	80 - 120
Iron	106		P	80 - 120
Magnesium	106		P	80 - 120
Manganese	100		P	80 - 120
Potassium	99.2		P	80 - 120
Sodium	101		P	80 - 120
Zinc	102		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P395438

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	93.3		P	85 - 115
Antimony	97.1		P	85 - 115
Arsenic	95.6		P	85 - 115
Beryllium	88.5		P	85 - 115
Boron	94.0		P	85 - 115
Cadmium	97.0		P	85 - 115
Chromium	93.6		P	85 - 115
Copper	95.6		P	85 - 115
Lead	96.9		P	85 - 115
Nickel	93.1		P	85 - 115
Selenium	94.3		P	85 - 115
Silver	97.8		P	85 - 115
Thallium	102		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P395585

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P395587

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	100		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P395910

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P395789

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	103		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P395463

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P395464

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P395544

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	107		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P395436

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.5		P	90 - 110

Reference Method: EPA 8270E

Batch ID: P395389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aldrin	38.5	39.6	P/P	20 - 110
Alpha-BHC	78.7	83.2	P/P	58 - 130
Alpha-Chlordane	75.8	84.1	P/P	61 - 105
Beta-BHC	89.6	93.1	P/P	53 - 164
Beta-Cyfluthrin	110	123	P/P	40 - 140
Bifenthrin	74.4	88.7	P/P	44 - 122
Chlorothalonil	124	126	P/P	20 - 201
Cis-Nonachlor	81.5	90.7	P/P	60 - 110
Cypermethrin	87.3	100	P/P	43 - 131
Dacthal	87.7	93.3	P/P	76 - 108
DDD-p,p'	85.6	94.4	P/P	68 - 118
DDE-p,p'	74.4	85.4	P/P	56 - 107
DDT-p,p'	72.6	79.7	P/P	55 - 122
Delta-BHC	124	130	P/P	60 - 181
Deltamethrin	90.9	99.7	P/P	51 - 139
Dichlobenil	52.4	52.1	P/P	20 - 106
Dicofol	99.3	103	P/P	56 - 130
Dieldrin	66.4	71.2	P/P	58 - 112
Endosulfan I	83.0	87.8	P/P	68 - 115
Endosulfan II	103	112	P/P	69 - 133
Endosulfan Sulfate	99.2	102	P/P	65 - 126
Endrin	83.7	87.3	P/P	66 - 118
Endrin Aldehyde	98.5	109	P/P	60 - 132
Endrin Ketone	89.7	94.9	P/P	68 - 121
Esfenvalerate	69.6	85.3	P/P	42 - 116
Ethalfuralin	70.5	76.5	P/P	50 - 118
Fenpropathrin	88.7	98.8	P/P	55 - 132
Gamma-BHC	89.5	92.7	P/P	65 - 147

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P395389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Gamma-Chlordane	71.3	80.2	P/P	56 - 103
Heptachlor	62.2	69.6	P/P	47 - 95.0
Heptachlor Epoxide	80.0	86.4	P/P	67 - 107
Hexachlorobenzene	61.8	68.3	P/P	45 - 99.0
Kepone	107	113	P/P	28 - 128
Lambda-Cyhalothrin	86.6	100	P/P	41 - 135
Methoxychlor	87.6	92.0	P/P	61 - 138
MGK-264	65.3	70.9	P/P	20 - 109
Mirex	61.1	73.6	P/P	36 - 92.0
Permethrin	71.5	83.4	P/P	45 - 111
Phenothrin	51.3	64.2	P/P	22 - 88.0
Piperonyl Butoxide	103	108	P/P	67 - 120
Prallethrin	67.7	74.8	P/P	28 - 92.0
Tau-Fluvalinate	95.0	109	P/P	38 - 145
Tetramethrin	95.8	106	P/P	29 - 150
Trans-Nonachlor	74.6	84.2	P/P	54 - 105
Triclosan Methyl	91.4	100	P/P	76 - 115
Trifluralin	70.7	77.0	P/P	53 - 111

Reference Method: EPA 8270E
Batch ID: P395643

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acetochlor	90.1	92.5	P/P	70 - 121
Alachlor	87.9	93.5	P/P	70 - 119
Ametryn	70.2	82.4	P/P	61 - 135
Atrazine	89.4	91.2	P/P	76 - 123
Atrazine Desethyl	90.7	91.8	P/P	35 - 140
Azinphos Methyl	94.8	118	P/P	57 - 163
Azoxystrobin	104	157	P/P	43 - 231
Bromacil	80.3	89.3	P/P	42 - 123
Butylate	51.4	50.7	P/P	34 - 92.0
Caffeine	87.9	98.7	P/P	70 - 130
Carbophenothion	84.5	94.6	P/P	61 - 121
Carfentrazone Ethyl	81.6	94.4	P/P	62 - 139
Chlorpyrifos Ethyl	96.9	88.8	P/P	67 - 121
Chlorpyrifos Methyl	90.2	91.7	P/P	67 - 120
Cyanazine	103	113	P/P	20 - 226
Demeton	80.5	81.0	P/P	35 - 125
Diazinon	85.7	89.3	P/P	70 - 122
Difenoconazole	94.2	135	P/P	56 - 186
Dimethenamid	85.3	85.9	P/P	67 - 119
Disulfoton	88.0	85.5	P/P	47 - 120
Dithiopyr	78.4	84.0	P/P	67 - 118
EPTC	59.6	51.4	P/P	33 - 90.0
Ethion	83.7	91.1	P/P	40 - 133
Ethoprop	81.1	80.9	P/P	61 - 121
Fenamiphos	84.3	99.9	P/P	31 - 139
Fenbuconazole	47.6	59.5	F/F	66 - 141
Fipronil	82.2	93.1	P/P	62 - 129
Fipronil Desulfinyl	80.1	86.5	P/P	59 - 126
Fipronil Sulfide	93.2	85.6	P/P	63 - 117

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 8270E
Batch ID: P395643

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fipronil Sulfone	89.3	92.5	P/P	57 - 117
Fluazifop-P-butyl	84.8	91.3	P/P	63 - 124
Fludioxonil	99.4	104	P/P	63 - 123
Flumioxazin	112	159	P/P	34 - 245
Flutolanil	73.6	87.9	P/P	56 - 131
Fluxapyroxad	70.7	87.7	P/P	57 - 117
Fonofos	83.2	82.1	P/P	61 - 116
Hexazinone	97.5	103	P/P	55 - 138
Imazalil	113	105	P/P	33 - 143
Iprodione	86.7	101	P/P	59 - 118
Malathion	103	113	P/P	62 - 138
Metalaxyl	88.7	90.8	P/P	24 - 147
Metolachlor	91.0	90.5	P/P	68 - 118
Metribuzin	90.4	90.0	P/P	20 - 239
Mevinphos	82.9	85.4	P/P	46 - 124
Molinate	66.5	61.1	P/P	46 - 100
Myclobutanil	81.6	85.6	P/P	32 - 149
Naled	53.2	52.9	P/P	32 - 95.0
Norflurazon	85.1	102	P/P	57 - 127
Oxadiazon	107	98.8	P/P	63 - 118
Oxyfluorfen	102	109	P/P	69 - 137
Parathion Ethyl	84.9	91.4	P/P	70 - 113
Parathion Methyl	96.5	99.5	P/P	71 - 130
Pendimethalin	86.0	84.9	P/P	55 - 118
Phorate	75.1	80.9	P/P	46 - 125
Prodiamine	62.0	59.9	P/P	20 - 141
Prometon	78.8	85.1	P/P	54 - 122
Prometryn	79.7	90.4	P/P	66 - 124
Pronamide	90.0	96.6	P/P	79 - 122
Propiconazole	75.1	88.7	P/P	61 - 126
Pyriproxyfen	78.2	90.1	P/P	52 - 131
Simazine	97.4	92.4	P/P	75 - 128
Sulfentrazone	71.8	90.4	P/P	20 - 132
Tebuconazole	64.4	69.0	P/P	20 - 116
Terbufos	86.9	84.0	P/P	61 - 117
Terbuthylazine	91.1	94.4	P/P	74 - 116

Reference Method: EPA 8276
Batch ID: P395389

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	106	99.3	P/P	56 - 117
Toxaphene	78.8	81.5	P/P	45 - 116

Reference Method: EPA 8321B
Batch ID: P395318

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	126		P	30 - 160
2,4,5-T	96.7		P	30 - 160
Acetaminophen	203		F	30 - 160
Acetamiprid	83.0		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B

Batch ID: P395318

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Afidopyropen	70.3		P	30 - 160
Bentazon	62.6		P	30 - 160
Benzovindiflupyr	86.8		P	30 - 160
Carbamazepine	91.1		P	30 - 160
Clothianidin	93.6		P	30 - 160
Dinotefuran	82.0		P	30 - 160
Diuron	68.1		P	30 - 160
Fenuron	87.9		P	30 - 160
Fluridone	79.5		P	30 - 160
Hydrocodone	91.3		P	30 - 160
Ibuprofen	80.2		P	30 - 160
Imazapyr	78.9		P	30 - 160
Imidacloprid	103		P	30 - 160
Linuron	67.1		P	30 - 160
Mandestrobin	85.2		P	30 - 160
MCPP	110		P	30 - 160
Naproxen	62.8		P	30 - 160
Primidone	91.1		P	30 - 160
Pyraclostrobin	78.8		P	30 - 160
Thiamethoxam	99.4		P	30 - 160
Tolfenpyrad	44.4		P	30 - 160
Triclopyr	111		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P395359

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
3-Hydroxycarbofuran	117		P	30 - 160
Aldicarb	105		P	30 - 160
Aldicarb Sulfone	99.2		P	30 - 160
Aldicarb Sulfoxide	90.9		P	30 - 160
Carbaryl	87.0		P	30 - 160
Carbofuran	92.4		P	30 - 160
Methiocarb	66.2		P	30 - 160
Methomyl	91.1		P	30 - 160
Oxamyl	112		P	30 - 160
Propoxur	85.7		P	30 - 160

Reference Method: EPA 8321B

Batch ID: P395510

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	139		P	40 - 150
AMPA	115		P	40 - 150
Endothall	89.0		P	40 - 150
Glufosinate	101		P	40 - 150
Glyphosate	80.1		P	40 - 140
Sucralose	101		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2120 B-2011
Batch ID: P395441

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.2		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P395527

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P395529

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.3		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P395711

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	94.5		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P395438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233519	Barium	104	104	P/P	80 - 120
2233519	Calcium	107	106	P/P	80 - 120
2233519	Iron	107	105	P/P	80 - 120
2233519	Magnesium	107	105	P/P	80 - 120
2233519	Manganese	102	103	P/P	80 - 120
2233519	Potassium	101	98.8	P/P	80 - 120
2233519	Sodium	103	99.0	P/P	80 - 120
2233519	Zinc	105	105	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P395438

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233519	Aluminum	90.9	93.1	P/P	80 - 120
2233519	Antimony	94.8	95.8	P/P	80 - 120
2233519	Arsenic	93.1	93.3	P/P	80 - 120
2233519	Beryllium	87.2	88.6	P/P	80 - 120
2233519	Boron	95.0	95.8	P/P	80 - 120
2233519	Cadmium	95.2	95.4	P/P	80 - 120
2233519	Chromium	92.9	94.3	P/P	80 - 120
2233519	Copper	93.5	95.9	P/P	80 - 120
2233519	Lead	96.1	96.6	P/P	80 - 120
2233519	Nickel	91.4	92.0	P/P	80 - 120
2233519	Selenium	91.8	91.9	P/P	80 - 120
2233519	Silver	95.4	95.2	P/P	80 - 120
2233519	Thallium	103	103	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P395585

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233312	Chloride	101	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P395587

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233312	Sulfate	99.7	98.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P395910

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233385	Ammonia-N	98.8	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P395463

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233314	NO2NO3-N	100	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P395464

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233514	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P395544

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233332	Total-P	105	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P395436

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233387	O-Phosphate-P	100	102	P/P	90 - 110

Reference Method: EPA 8270E

Batch ID: P395389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233148	Aldrin	51.5	54.3	P/P	22 - 127
2233148	Dieldrin	71.6	68.4	P/P	52 - 123
2233148	Kepone	104	101	P/P	18 - 138
2233449	Alpha-BHC	80.2	78.0	P/P	53 - 147
2233449	Alpha-Chlordane	78.1	78.1	P/P	56 - 107
2233449	Beta-BHC	94.0	102	P/P	43 - 182
2233449	Beta-Cyfluthrin	109	105	P/P	42 - 157
2233449	Bifenthrin	81.0	76.4	P/P	52 - 124
2233449	Chlorothalonil	122	119	P/P	10 - 265
2233449	Cis-Nonachlor	81.9	84.0	P/P	55 - 112
2233449	Cypermethrin	92.1	88.0	P/P	46 - 144
2233449	Dacthal	90.7	91.7	P/P	72 - 110
2233449	DDD-p,p'	85.9	87.9	P/P	58 - 123
2233449	DDE-p,p'	76.8	80.4	P/P	52 - 106
2233449	DDT-p,p'	73.0	71.4	P/P	50 - 127
2233449	Delta-BHC	138	143	P/P	56 - 222
2233449	Deltamethrin	96.8	91.6	P/P	47 - 152
2233449	Dichlobenil	46.3	45.2	P/P	22 - 99.0
2233449	Dicofol	99.0	95.1	P/P	38 - 145
2233449	Endosulfan I	88.4	87.5	P/P	64 - 124
2233449	Endosulfan II	95.5	100	P/P	52 - 159
2233449	Endosulfan Sulfate	98.9	96.5	P/P	62 - 136
2233449	Endrin	87.0	88.3	P/P	57 - 126
2233449	Endrin Aldehyde	106	110	P/P	41 - 128
2233449	Endrin Ketone	93.5	90.7	P/P	67 - 129
2233449	Esfenvalerate	77.2	74.6	P/P	50 - 120
2233449	Ethalfuralin	71.6	68.2	P/P	41 - 125
2233449	Fenpropathrin	87.7	89.5	P/P	40 - 202
2233449	Gamma-BHC	96.9	98.7	P/P	58 - 180
2233449	Gamma-Chlordane	73.9	74.3	P/P	54 - 103
2233449	Heptachlor	63.8	57.4	P/P	46 - 94.0
2233449	Heptachlor Epoxide	82.0	82.0	P/P	62 - 111
2233449	Hexachlorobenzene	62.2	60.0	P/P	42 - 95.0
2233449	Lambda-Cyhalothrin	95.2	92.0	P/P	37 - 162

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E

Batch ID: P395389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233449	Methoxychlor	85.5	82.5	P/P	52 - 143
2233449	MGK-264	77.5	77.4	P/P	37 - 102
2233449	Mirex	67.4	67.0	P/P	43 - 91.0
2233449	Permethrin	75.8	73.0	P/P	48 - 113
2233449	Phenothrin	64.4	63.8	P/P	30 - 104
2233449	Piperonyl Butoxide	103	100	P/P	67 - 127
2233449	Prallethrin	67.3	71.1	P/P	28 - 102
2233449	Tau-Fluvalinate	99.7	97.9	P/P	46 - 174
2233449	Tetramethrin	94.5	93.0	P/P	28 - 176
2233449	Trans-Nonachlor	77.0	77.9	P/P	51 - 103
2233449	Triclosan Methyl	92.5	95.7	P/P	67 - 116
2233449	Trifluralin	70.9	69.3	P/P	47 - 118

Reference Method: EPA 8270E

Batch ID: P395643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233520	Acetochlor	80.7	88.0	P/P	66 - 122
2233520	Alachlor	80.5	81.4	P/P	65 - 122
2233520	Ametryn	78.0	77.3	P/P	45 - 173
2233520	Atrazine	81.0	85.6	P/P	70 - 134
2233520	Atrazine Desethyl	77.8	83.2	P/P	25 - 150
2233520	Azinphos Methyl	94.0	105	P/P	44 - 174
2233520	Azoxystrobin	126	125	P/P	10 - 268
2233520	Bromacil	76.7	76.0	P/P	31 - 145
2233520	Butylate	37.4	35.0	P/P	15 - 97.0
2233520	Caffeine	107	103	P/P	70 - 130
2233520	Carbophenothion	75.3	75.8	P/P	42 - 129
2233520	Carfentrazone Ethyl	76.3	77.8	P/P	62 - 145
2233520	Chlorpyrifos Ethyl	75.5	73.7	P/P	60 - 124
2233520	Chlorpyrifos Methyl	76.8	79.5	P/P	66 - 119
2233520	Cyanazine	102	109	P/P	17 - 225
2233520	Demeton	71.0	75.3	P/P	36 - 142
2233520	Diazinon	83.4	87.2	P/P	70 - 128
2233520	Difenoconazole	117	113	P/P	33 - 222
2233520	Dimethenamid	79.2	81.7	P/P	54 - 125
2233520	Disulfoton	70.0	70.4	P/P	49 - 133
2233520	Dithiopyr	70.9	74.6	P/P	55 - 123
2233520	EPTC	34.7	33.3	P/P	19 - 91.0
2233520	Ethion	72.6	69.1	P/P	13 - 143
2233520	Ethoprop	74.8	80.2	P/P	49 - 144
2233520	Fenamiphos	45.8	49.7	P/P	32 - 136
2233520	Fenbuconazole	58.4	53.6	F/F	73 - 148
2233520	Fipronil	75.9	76.6	P/P	57 - 129
2233520	Fipronil Desulfinyl	66.7	67.6	P/P	49 - 127
2233520	Fipronil Sulfide	64.9	77.6	P/P	44 - 127
2233520	Fipronil Sulfone	72.5	85.2	P/P	35 - 126
2233520	Fluazifop-P-butyl	79.6	79.2	P/P	67 - 129
2233520	Fludioxonil	92.7	96.5	P/P	61 - 126
2233520	Flumioxazin	141	141	P/P	38 - 279
2233520	Flutolanil	62.4	59.9	P/P	55 - 136
2233520	Fluxapyroxad	69.2	69.5	P/P	33 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8270E
Batch ID: P395643

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233520	Fonofos	70.8	77.1	P/P	58 - 125
2233520	Hexazinone	97.1	92.8	P/P	57 - 148
2233520	Imazalil	100	111	P/P	10 - 221
2233520	Iprodione	80.1	85.3	P/P	32 - 140
2233520	Malathion	84.5	87.0	P/P	52 - 138
2233520	Metalaxyl	80.7	81.3	P/P	46 - 134
2233520	Metolachlor	88.8	85.6	P/P	58 - 122
2233520	Metribuzin	87.2	84.3	P/P	16 - 272
2233520	Mevinphos	81.0	90.0	P/P	45 - 140
2233520	Molinate	55.6	58.5	P/P	41 - 103
2233520	Myclobutanil	73.9	76.8	P/P	60 - 134
2233520	Naled	46.1	53.4	P/P	20 - 113
2233520	Norflurazon	91.6	94.2	P/P	51 - 123
2233520	Oxadiazon	65.4	64.1	P/P	44 - 125
2233520	Oxyfluorfen	98.2	99.3	P/P	66 - 176
2233520	Parathion Ethyl	78.9	79.6	P/P	57 - 132
2233520	Parathion Methyl	83.0	86.2	P/P	59 - 156
2233520	Pendimethalin	79.3	79.3	P/P	59 - 129
2233520	Phorate	67.3	69.0	P/P	47 - 136
2233520	Prodiamine	60.5	61.5	P/P	10 - 159
2233520	Prometon	78.8	80.3	P/P	59 - 127
2233520	Prometryn	74.0	74.2	P/P	59 - 129
2233520	Pronamide	105	95.6	P/P	65 - 145
2233520	Propiconazole	79.4	77.9	P/P	28 - 165
2233520	Pyriproxyfen	78.9	83.1	P/P	21 - 180
2233520	Simazine	78.5	85.4	P/P	63 - 147
2233520	Sulfentrazone	79.5	79.9	P/P	32 - 136
2233520	Tebuconazole	59.3	47.6	P/P	10 - 117
2233520	Terbufos	73.1	80.1	P/P	61 - 131
2233520	Terbutylazine	82.7	82.8	P/P	62 - 126

Reference Method: EPA 8276
Batch ID: P395389

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233148	Chlordane	106	85.6	P/P	47 - 128
2233148	Toxaphene	88.4	85.3	P/P	11 - 163

Reference Method: EPA 8321B
Batch ID: P395318

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2232693	2,4-D	112	98.8	P/P	30 - 160
2232693	2,4,5-T	104	97.7	P/P	30 - 160
2232693	Acetaminophen	108	98.9	P/P	30 - 160
2232693	Acetamiprid	93.9	75.5	P/P	30 - 160
2232693	Afidopyropen	80.5	64.6	P/P	30 - 160
2232693	Bentazon	36.4	37.6	P/P	30 - 160
2232693	Benzovindiflupyr	91.8	81.8	P/P	30 - 160
2232693	Carbamazepine	75.9	74.6	P/P	30 - 160
2232693	Clothianidin	83.2	96.8	P/P	30 - 160
2232693	Dinotefuran	120	113	P/P	30 - 160

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B

Batch ID: P395318

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2232693	Diuron	53.1	48.9	P/P	30 - 160
2232693	Fenuron	67.5	65.6	P/P	30 - 160
2232693	Fluridone	84.5	68.2	P/P	30 - 160
2232693	Hydrocodone	99.5	96.2	P/P	30 - 160
2232693	Ibuprofen	82.8	71.7	P/P	30 - 160
2232693	Imazapyr	93.7	83.8	P/P	30 - 160
2232693	Imidacloprid	152	142	P/P	30 - 160
2232693	Linuron	61.9	56.1	P/P	30 - 160
2232693	Mandestrobin	91.4	82.9	P/P	30 - 160
2232693	MCP	103	94.5	P/P	30 - 160
2232693	Naproxen	58.5	48.2	P/P	30 - 160
2232693	Primidone	102	97.6	P/P	30 - 160
2232693	Pyraclostrobin	86.9	76.6	P/P	30 - 160
2232693	Thiamethoxam	135	127	P/P	30 - 160
2232693	Tolfenpyrad	55.5	55.3	P/P	30 - 160
2232693	Triclopyr	117	107	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P395359

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233032	3-Hydroxycarbofuran	105	99.3	P/P	30 - 160
2233032	Aldicarb	92.8	100	P/P	30 - 160
2233032	Aldicarb Sulfone	107	111	P/P	30 - 160
2233032	Aldicarb Sulfoxide	39.0	39.6	P/P	30 - 160
2233032	Carbaryl	57.4	64.3	P/P	30 - 160
2233032	Carbofuran	72.2	72.5	P/P	30 - 160
2233032	Methiocarb	56.8	59.7	P/P	30 - 160
2233032	Methomyl	73.0	82.2	P/P	30 - 160
2233032	Oxamyl	106	103	P/P	30 - 160
2233032	Propoxur	67.1	69.0	P/P	30 - 160

Reference Method: EPA 8321B

Batch ID: P395510

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233336	Acesulfame K	198	211	F/F	40 - 150
2233336	AMPA	114	136	P/P	40 - 150
2233336	Endothall	80.8	77.0	P/P	40 - 150
2233336	Glufosinate	104	103	P/P	40 - 150
2233336	Glyphosate	63.7	67.4	P/P	40 - 140
2233336	Sucralose	97.9	99.4	P/P	40 - 150

Reference Method: SM 4500 F-C-2011

Batch ID: P395529

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233261	Fluoride	98.5	98.5	P/P	94 - 107

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P395711

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2233314	Organic Carbon	99.2	99.2	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P395459

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233383	Turbidity	2.29	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P395438

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233519	Barium	0.0173	Spike	P	0 - 20
2233519	Calcium	0.940	Spike	P	0 - 20
2233519	Iron	1.70	Spike	P	0 - 20
2233519	Magnesium	1.70	Spike	P	0 - 20
2233519	Manganese	0.312	Spike	P	0 - 20
2233519	Potassium	1.62	Spike	P	0 - 20
2233519	Sodium	2.43	Spike	P	0 - 20
2233519	Zinc	0.296	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P395438

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233519	Aluminum	1.85	Spike	P	0 - 20
2233519	Antimony	1.03	Spike	P	0 - 20
2233519	Arsenic	0.230	Spike	P	0 - 20
2233519	Beryllium	1.57	Spike	P	0 - 20
2233519	Boron	0.704	Spike	P	0 - 20
2233519	Cadmium	0.228	Spike	P	0 - 20
2233519	Chromium	1.58	Spike	P	0 - 20
2233519	Copper	2.61	Spike	P	0 - 20
2233519	Lead	0.507	Spike	P	0 - 20
2233519	Nickel	0.638	Spike	P	0 - 20
2233519	Selenium	0.0975	Spike	P	0 - 20
2233519	Silver	0.279	Spike	P	0 - 20
2233519	Thallium	0.482	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P395585

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233312	Chloride	0.249	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P395587

Replicated

Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233312	Sulfate	0.862	Spike	P	0 - 20

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Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P395910

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233385	Ammonia-N	0.601	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P395789

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233384	Kjeldahl Nitrogen	18.5	Sample	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P395463

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233314	NO2NO3-N	0.496	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P395464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233514	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P395544

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233332	Total-P	0.0226	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P395436

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233387	O-Phosphate-P	1.20	Spike	P	0 - 20

Reference Method: EPA 8270E
Batch ID: P395389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233148	Aldrin	5.24	Spike	P	0 - 30
2233148	Dieldrin	4.58	Spike	P	0 - 30
2233148	Kepone	2.03	Spike	P	0 - 30
2233449	Alpha-BHC	2.78	Spike	P	0 - 30
2233449	Alpha-Chlordane	0.0717	Spike	P	0 - 30
2233449	Beta-BHC	7.98	Spike	P	0 - 30
2233449	Beta-Cyfluthrin	4.09	Spike	P	0 - 30
2233449	Bifenthrin	5.81	Spike	P	0 - 30
2233449	Chlorothalonil	2.02	Spike	P	0 - 30

Quality Assurance Report

Precision

Reference Method: EPA 8270E

Batch ID: P395389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233449	Cis-Nonachlor	2.57	Spike	P	0 - 30
2233449	Cypermethrin	4.46	Spike	P	0 - 30
2233449	Dacthal	1.18	Spike	P	0 - 30
2233449	DDD-p,p'	2.33	Spike	P	0 - 30
2233449	DDE-p,p'	4.59	Spike	P	0 - 30
2233449	DDT-p,p'	2.26	Spike	P	0 - 30
2233449	Delta-BHC	4.00	Spike	P	0 - 30
2233449	Deltamethrin	5.51	Spike	P	0 - 30
2233449	Dichlobenil	2.33	Spike	P	0 - 30
2233449	Dicofol	4.04	Spike	P	0 - 30
2233449	Endosulfan I	1.01	Spike	P	0 - 30
2233449	Endosulfan II	5.01	Spike	P	0 - 30
2233449	Endosulfan Sulfate	2.50	Spike	P	0 - 30
2233449	Endrin	1.53	Spike	P	0 - 30
2233449	Endrin Aldehyde	3.50	Spike	P	0 - 30
2233449	Endrin Ketone	3.03	Spike	P	0 - 30
2233449	Esfenvalerate	3.46	Spike	P	0 - 30
2233449	Ethalfuralin	4.92	Spike	P	0 - 30
2233449	Fenpropathrin	2.04	Spike	P	0 - 30
2233449	Gamma-BHC	1.78	Spike	P	0 - 30
2233449	Gamma-Chlordane	0.473	Spike	P	0 - 30
2233449	Heptachlor	10.6	Spike	P	0 - 30
2233449	Heptachlor Epoxide	0.0842	Spike	P	0 - 30
2233449	Hexachlorobenzene	3.61	Spike	P	0 - 30
2233449	Lambda-Cyhalothrin	3.48	Spike	P	0 - 30
2233449	Methoxychlor	3.65	Spike	P	0 - 30
2233449	MGK-264	0.0555	Spike	P	0 - 30
2233449	Mirex	0.732	Spike	P	0 - 30
2233449	Permethrin	3.75	Spike	P	0 - 30
2233449	Phenothrin	0.902	Spike	P	0 - 30
2233449	Piperonyl Butoxide	2.40	Spike	P	0 - 30
2233449	Prallethrin	5.57	Spike	P	0 - 30
2233449	Tau-Fluvalinate	1.85	Spike	P	0 - 30
2233449	Tetramethrin	1.57	Spike	P	0 - 30
2233449	Trans-Nonachlor	1.26	Spike	P	0 - 30
2233449	Triclosan Methyl	3.45	Spike	P	0 - 30
2233449	Trifluralin	2.40	Spike	P	0 - 30
LFB	Aldrin	2.80	LCS	P	0 - 30
LFB	Alpha-BHC	5.62	LCS	P	0 - 30
LFB	Alpha-Chlordane	10.5	LCS	P	0 - 30
LFB	Beta-BHC	3.88	LCS	P	0 - 30
LFB	Beta-Cyfluthrin	11.3	LCS	P	0 - 30
LFB	Bifenthrin	17.5	LCS	P	0 - 30
LFB	Chlorothalonil	2.11	LCS	P	0 - 30
LFB	Cis-Nonachlor	10.6	LCS	P	0 - 30
LFB	Cypermethrin	13.6	LCS	P	0 - 30
LFB	Dacthal	6.22	LCS	P	0 - 30
LFB	DDD-p,p'	9.79	LCS	P	0 - 30
LFB	DDE-p,p'	13.9	LCS	P	0 - 30
LFB	DDT-p,p'	9.42	LCS	P	0 - 30
LFB	Delta-BHC	4.85	LCS	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8270E

Batch ID: P395389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Deltamethrin	9.14	LCS	P	0 - 30
LFB	Dichlobenil	0.571	LCS	P	0 - 30
LFB	Dicofol	3.17	LCS	P	0 - 30
LFB	Dieldrin	7.06	LCS	P	0 - 30
LFB	Endosulfan I	5.61	LCS	P	0 - 30
LFB	Endosulfan II	8.56	LCS	P	0 - 30
LFB	Endosulfan Sulfate	2.76	LCS	P	0 - 30
LFB	Endrin	4.24	LCS	P	0 - 30
LFB	Endrin Aldehyde	10.5	LCS	P	0 - 30
LFB	Endrin Ketone	5.67	LCS	P	0 - 30
LFB	Esfenvalerate	20.2	LCS	P	0 - 30
LFB	Ethalfuralin	8.10	LCS	P	0 - 30
LFB	Fenpropathrin	10.8	LCS	P	0 - 30
LFB	Gamma-BHC	3.52	LCS	P	0 - 30
LFB	Gamma-Chlordane	11.7	LCS	P	0 - 30
LFB	Heptachlor	11.2	LCS	P	0 - 30
LFB	Heptachlor Epoxide	7.68	LCS	P	0 - 30
LFB	Hexachlorobenzene	9.90	LCS	P	0 - 30
LFB	Kepone	5.33	LCS	P	0 - 30
LFB	Lambda-Cyhalothrin	14.8	LCS	P	0 - 30
LFB	Methoxychlor	4.84	LCS	P	0 - 30
LFB	MGK-264	8.30	LCS	P	0 - 30
LFB	Mirex	18.6	LCS	P	0 - 30
LFB	Permethrin	15.4	LCS	P	0 - 30
LFB	Phenothrin	22.4	LCS	P	0 - 30
LFB	Piperonyl Butoxide	5.21	LCS	P	0 - 30
LFB	Prallethrin	9.95	LCS	P	0 - 30
LFB	Tau-Fluvalinate	13.5	LCS	P	0 - 30
LFB	Tetramethrin	10.5	LCS	P	0 - 30
LFB	Trans-Nonachlor	12.1	LCS	P	0 - 30
LFB	Triclosan Methyl	8.95	LCS	P	0 - 30
LFB	Trifluralin	8.55	LCS	P	0 - 30

Reference Method: EPA 8270E

Batch ID: P395643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233520	Acetochlor	8.64	Spike	P	0 - 30
2233520	Alachlor	1.09	Spike	P	0 - 30
2233520	Ametryn	0.803	Spike	P	0 - 30
2233520	Atrazine	4.80	Spike	P	0 - 30
2233520	Atrazine Desethyl	6.72	Spike	P	0 - 30
2233520	Azinphos Methyl	11.4	Spike	P	0 - 30
2233520	Azoxystrobin	0.824	Spike	P	0 - 30
2233520	Bromacil	0.941	Spike	P	0 - 30
2233520	Butylate	6.66	Spike	P	0 - 30
2233520	Caffeine	3.59	Spike	P	0 - 30
2233520	Carbophenothion	0.724	Spike	P	0 - 30
2233520	Carfentrazone Ethyl	1.88	Spike	P	0 - 30
2233520	Chlorpyrifos Ethyl	2.41	Spike	P	0 - 30

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Precision

Reference Method: EPA 8270E

Batch ID: P395643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233520	Chlorpyrifos Methyl	3.50	Spike	P	0 - 30
2233520	Cyanazine	6.37	Spike	P	0 - 30
2233520	Demeton	5.89	Spike	P	0 - 30
2233520	Diazinon	4.54	Spike	P	0 - 30
2233520	Difenoconazole	3.50	Spike	P	0 - 30
2233520	Dimethenamid	3.07	Spike	P	0 - 30
2233520	Disulfoton	0.623	Spike	P	0 - 30
2233520	Dithiopyr	5.10	Spike	P	0 - 30
2233520	EPTC	4.09	Spike	P	0 - 30
2233520	Ethion	4.97	Spike	P	0 - 30
2233520	Ethoprop	6.95	Spike	P	0 - 30
2233520	Fenamiphos	8.19	Spike	P	0 - 30
2233520	Fenbuconazole	8.48	Spike	P	0 - 30
2233520	Fipronil	0.842	Spike	P	0 - 30
2233520	Fipronil Desulfinyl	1.27	Spike	P	0 - 30
2233520	Fipronil Sulfide	17.8	Spike	P	0 - 30
2233520	Fipronil Sulfone	16.2	Spike	P	0 - 30
2233520	Fluazifop-P-butyl	0.532	Spike	P	0 - 30
2233520	Fludioxonil	3.95	Spike	P	0 - 30
2233520	Flumioxazin	0.493	Spike	P	0 - 30
2233520	Flutolanil	3.82	Spike	P	0 - 30
2233520	Fluxapyroxad	0.324	Spike	P	0 - 30
2233520	Fonofos	8.54	Spike	P	0 - 30
2233520	Hexazinone	4.54	Spike	P	0 - 30
2233520	Imazalil	10.4	Spike	P	0 - 30
2233520	Iprodione	6.29	Spike	P	0 - 30
2233520	Malathion	2.88	Spike	P	0 - 30
2233520	Metalaxyl	0.710	Spike	P	0 - 30
2233520	Metolachlor	3.61	Spike	P	0 - 30
2233520	Metribuzin	3.36	Spike	P	0 - 30
2233520	Mevinphos	10.5	Spike	P	0 - 30
2233520	Molinate	5.06	Spike	P	0 - 30
2233520	Myclobutanil	3.81	Spike	P	0 - 30
2233520	Naled	14.6	Spike	P	0 - 30
2233520	Norflurazon	2.87	Spike	P	0 - 30
2233520	Oxadiazon	1.60	Spike	P	0 - 30
2233520	Oxyfluorfen	1.09	Spike	P	0 - 30
2233520	Parathion Ethyl	0.890	Spike	P	0 - 30
2233520	Parathion Methyl	3.80	Spike	P	0 - 30
2233520	Pendimethalin	0.0934	Spike	P	0 - 30
2233520	Phorate	2.43	Spike	P	0 - 30
2233520	Prodiamine	1.70	Spike	P	0 - 30
2233520	Prometon	1.87	Spike	P	0 - 30
2233520	Prometryn	0.245	Spike	P	0 - 30
2233520	Pronamide	8.97	Spike	P	0 - 30
2233520	Propiconazole	1.94	Spike	P	0 - 30
2233520	Pyriproxyfen	5.24	Spike	P	0 - 30
2233520	Simazine	8.40	Spike	P	0 - 30
2233520	Sulfentrazone	0.513	Spike	P	0 - 30
2233520	Tebuconazole	21.9	Spike	P	0 - 30
2233520	Terbufos	9.18	Spike	P	0 - 30

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Precision

Reference Method: EPA 8270E

Batch ID: P395643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233520	Terbutylazine	0.134	Spike	P	0 - 30
LFB	Acetochlor	2.57	LCS	P	0 - 30
LFB	Alachlor	6.18	LCS	P	0 - 30
LFB	Ametryn	16.0	LCS	P	0 - 30
LFB	Atrazine	2.02	LCS	P	0 - 30
LFB	Atrazine Desethyl	1.18	LCS	P	0 - 30
LFB	Azinphos Methyl	22.2	LCS	P	0 - 30
LFB	Azoxystrobin	40.4	LCS	F	0 - 30
LFB	Bromacil	10.6	LCS	P	0 - 30
LFB	Butylate	1.26	LCS	P	0 - 30
LFB	Caffeine	11.6	LCS	P	0 - 30
LFB	Carbophenothion	11.3	LCS	P	0 - 30
LFB	Carfentrazone Ethyl	14.6	LCS	P	0 - 30
LFB	Chlorpyrifos Ethyl	8.73	LCS	P	0 - 30
LFB	Chlorpyrifos Methyl	1.62	LCS	P	0 - 30
LFB	Cyanazine	9.34	LCS	P	0 - 30
LFB	Demeton	0.635	LCS	P	0 - 30
LFB	Diazinon	4.11	LCS	P	0 - 30
LFB	Difenoconazole	35.7	LCS	F	0 - 30
LFB	Dimethenamid	0.780	LCS	P	0 - 30
LFB	Disulfoton	2.96	LCS	P	0 - 30
LFB	Dithiopyr	6.86	LCS	P	0 - 30
LFB	EPTC	14.7	LCS	P	0 - 30
LFB	Ethion	8.47	LCS	P	0 - 30
LFB	Ethoprop	0.264	LCS	P	0 - 30
LFB	Fenamiphos	16.9	LCS	P	0 - 30
LFB	Fenbuconazole	22.3	LCS	P	0 - 30
LFB	Fipronil	12.4	LCS	P	0 - 30
LFB	Fipronil Desulfinyl	7.72	LCS	P	0 - 30
LFB	Fipronil Sulfide	8.47	LCS	P	0 - 30
LFB	Fipronil Sulfone	3.56	LCS	P	0 - 30
LFB	Fluazifop-P-butyl	7.31	LCS	P	0 - 30
LFB	Fludioxonil	4.07	LCS	P	0 - 30
LFB	Flumioxazin	34.2	LCS	F	0 - 30
LFB	Flutolanil	17.7	LCS	P	0 - 30
LFB	Fluxapyroxad	21.4	LCS	P	0 - 30
LFB	Fonofos	1.35	LCS	P	0 - 30
LFB	Hexazinone	5.83	LCS	P	0 - 30
LFB	Imazalil	7.27	LCS	P	0 - 30
LFB	Iprodione	15.0	LCS	P	0 - 30
LFB	Malathion	8.67	LCS	P	0 - 30
LFB	Metalaxyl	2.44	LCS	P	0 - 30
LFB	Metolachlor	0.577	LCS	P	0 - 30
LFB	Metribuzin	0.463	LCS	P	0 - 30
LFB	Mevinphos	3.02	LCS	P	0 - 30
LFB	Molinate	8.53	LCS	P	0 - 30
LFB	Myclobutanil	4.81	LCS	P	0 - 30
LFB	Naled	0.481	LCS	P	0 - 30
LFB	Norflurazon	17.8	LCS	P	0 - 30
LFB	Oxadiazon	7.97	LCS	P	0 - 30
LFB	Oxyfluorfen	6.75	LCS	P	0 - 30

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Reference Method: EPA 8270E
Batch ID: P395643

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
LFB	Parathion Ethyl	7.39	LCS	P	0 - 30
LFB	Parathion Methyl	3.04	LCS	P	0 - 30
LFB	Pendimethalin	1.33	LCS	P	0 - 30
LFB	Phorate	7.44	LCS	P	0 - 30
LFB	Prodiamine	3.35	LCS	P	0 - 30
LFB	Prometon	7.76	LCS	P	0 - 30
LFB	Prometryn	12.6	LCS	P	0 - 30
LFB	Pronamide	7.03	LCS	P	0 - 30
LFB	Propiconazole	16.6	LCS	P	0 - 30
LFB	Pyriproxyfen	14.1	LCS	P	0 - 30
LFB	Simazine	5.29	LCS	P	0 - 30
LFB	Sulfentrazone	22.9	LCS	P	0 - 30
LFB	Tebuconazole	6.90	LCS	P	0 - 30
LFB	Terbufos	3.34	LCS	P	0 - 30
LFB	Terbutylazine	3.59	LCS	P	0 - 30

Reference Method: EPA 8276
Batch ID: P395389

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233148	Chlordane	20.2	Spike	P	0 - 30
2233148	Toxaphene	3.62	Spike	P	0 - 30
LFB	Chlordane	6.36	LCS	P	0 - 30
LFB	Toxaphene	3.34	LCS	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P395318

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2232693	2,4-D	12.1	Spike	P	0 - 30
2232693	2,4,5-T	5.77	Spike	P	0 - 30
2232693	Acetaminophen	8.43	Spike	P	0 - 30
2232693	Acetamiprid	21.7	Spike	P	0 - 30
2232693	Afidopyropen	21.8	Spike	P	0 - 30
2232693	Bentazon	3.25	Spike	P	0 - 30
2232693	Benzovindiflupyr	11.5	Spike	P	0 - 30
2232693	Carbamazepine	1.75	Spike	P	0 - 30
2232693	Clothianidin	15.1	Spike	P	0 - 30
2232693	Dinotefuran	5.98	Spike	P	0 - 30
2232693	Diuron	8.12	Spike	P	0 - 30
2232693	Fenuron	2.80	Spike	P	0 - 30
2232693	Fluridone	21.4	Spike	P	0 - 30
2232693	Hydrocodone	3.36	Spike	P	0 - 30
2232693	Ibuprofen	14.4	Spike	P	0 - 30
2232693	Imazapyr	5.74	Spike	P	0 - 30
2232693	Imidacloprid	7.06	Spike	P	0 - 30
2232693	Linuron	9.67	Spike	P	0 - 30
2232693	Mandestrobin	9.80	Spike	P	0 - 30
2232693	MCP	8.54	Spike	P	0 - 30

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Reference Method: EPA 8321B
 Batch ID: P395318

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2232693	Naproxen	19.3	Spike	P	0 - 30
2232693	Primidone	4.40	Spike	P	0 - 30
2232693	Pyraclostrobin	12.6	Spike	P	0 - 30
2232693	Thiamethoxam	5.64	Spike	P	0 - 30
2232693	Tolfenpyrad	0.337	Spike	P	0 - 30
2232693	Triclopyr	8.82	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P395359

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233032	3-Hydroxycarbofuran	5.21	Spike	P	0 - 30
2233032	Aldicarb	7.73	Spike	P	0 - 30
2233032	Aldicarb Sulfone	3.68	Spike	P	0 - 30
2233032	Aldicarb Sulfoxide	1.57	Spike	P	0 - 30
2233032	Carbaryl	11.3	Spike	P	0 - 30
2233032	Carbofuran	0.447	Spike	P	0 - 30
2233032	Methiocarb	4.93	Spike	P	0 - 30
2233032	Methomyl	11.8	Spike	P	0 - 30
2233032	Oxamyl	3.38	Spike	P	0 - 30
2233032	Propoxur	2.70	Spike	P	0 - 30

Reference Method: EPA 8321B
 Batch ID: P395510

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233336	Acesulfame K	6.12	Spike	P	0 - 30
2233336	AMPA	17.4	Spike	P	0 - 30
2233336	Endothall	4.83	Spike	P	0 - 30
2233336	Glufosinate	0.584	Spike	P	0 - 30
2233336	Glyphosate	5.70	Spike	P	0 - 30
2233336	Sucralose	1.49	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
 Batch ID: P395441

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233369	Color (true)	1.06	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
 Batch ID: P395527

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233261	Total Alkalinity	1.33	Sample	P	0 - 8.1

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Reference Method: SM 2540 C-2011
Batch ID: P395817

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233369	TDS	6.06	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P395529

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233261	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P395711

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2233314	Organic Carbon	0.0271	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Surrogates

Lab Sample ID: 2233500
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbaryl-d7	50.1	P	30 - 160

Lab Sample ID: 2233501
Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	115	P	30 - 160
EPA 8321B	Acetaminophen-d4	107	P	30 - 160
EPA 8321B	Carbamazepine-d10	82.1	P	30 - 160
EPA 8321B	Diuron-d6	68.9	P	30 - 160
EPA 8321B	Endothall-d6	119	P	40 - 160
EPA 8321B	Endothall-d6	119	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	92.4	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	92.4	P	40 - 160
EPA 8321B	Ibuprofen-d3	78.0	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	85.8	P	30 - 160
EPA 8321B	Sucralose-d6	85.8	P	30 - 160

Lab Sample ID: 2233502
Field Sample ID: G4NW0531

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	109	P	30 - 160
EPA 8321B	Acetaminophen-d4	98.7	P	30 - 160
EPA 8321B	Carbamazepine-d10	90.2	P	30 - 160
EPA 8321B	Diuron-d6	70.5	P	30 - 160
EPA 8321B	Endothall-d6	113	P	40 - 160
EPA 8321B	Endothall-d6	113	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	91.0	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	91.0	P	40 - 160
EPA 8321B	Ibuprofen-d3	79.1	P	30 - 160
EPA 8321B	Primidone-d5	113	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160
EPA 8321B	Sucralose-d6	102	P	30 - 160

Lab Sample ID: 2233503
Field Sample ID: G4NW0278

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	106	P	30 - 160
EPA 8321B	Acetaminophen-d4	80.0	P	30 - 160
EPA 8321B	Carbamazepine-d10	92.9	P	30 - 160
EPA 8321B	Diuron-d6	84.7	P	30 - 160
EPA 8321B	Endothall-d6	109	P	40 - 160
EPA 8321B	Endothall-d6	109	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	134	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	134	P	40 - 160
EPA 8321B	Ibuprofen-d3	71.6	P	30 - 160
EPA 8321B	Primidone-d5	93.6	P	30 - 160
EPA 8321B	Sucralose-d6	95.3	P	30 - 160
EPA 8321B	Sucralose-d6	95.3	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2233504

Field Sample ID: G4NW0193

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	114	P	30 - 160
EPA 8321B	Acetaminophen-d4	107	P	30 - 160
EPA 8321B	Carbamazepine-d10	96.0	P	30 - 160
EPA 8321B	Diuron-d6	78.0	P	30 - 160
EPA 8321B	Endothall-d6	93.6	P	40 - 160
EPA 8321B	Endothall-d6	93.6	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	94.3	P	40 - 160
EPA 8321B	Glyphosate 13C 15N	94.3	P	40 - 160
EPA 8321B	Ibuprofen-d3	78.3	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160
EPA 8321B	Sucralose-d6	104	P	30 - 160

Lab Sample ID: 2233505

Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Decachlorobiphenyl	100	P	40 - 123
EPA 8270E	Decachlorobiphenyl	91.2	P	47 - 111
EPA 8270E	Tetrachloro-m-xylene	55.9	P	31 - 100
EPA 8270E	Tetrachloro-m-xylene	62.0	P	33 - 102
EPA 8276	Decachlorobiphenyl	77.8	P	29 - 92.0
EPA 8276	PCNB	88.6	P	43 - 134

Lab Sample ID: 2233506

Field Sample ID: G4NW0211

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8270E	Caffeine-d9	85.8	P	20 - 200
EPA 8270E	Simazine-d10	99.4	P	73 - 135
EPA 8270E	Terbufos-d10	92.8	P	58 - 130

Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A104216

Included Lab Sample IDs: 2233467, 2233470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.9	99.4	P/P	90 - 110
Sulfate	98.9	99.7	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A104252

Included Lab Sample IDs: 2233469, 2233472

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.0	97.9	P/P	90 - 110
O-Phosphate-P	98.7	97.8	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A104253

Included Lab Sample IDs: 2233467, 2233470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	101	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A104266

Included Lab Sample IDs: 2233467, 2233470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	102	101	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A104267

Included Lab Sample IDs: 2233468, 2233471

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	104	P/P	90 - 110
NO2NO3-N	104	105	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A104294

Included Lab Sample IDs: 2233467, 2233470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.1	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A104294

Included Lab Sample IDs: 2233467, 2233470

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	100	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A104297

Included Lab Sample IDs: 2233501, 2233502, 2233503, 2233504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	112	97.7	P/P	50 - 150
2,4,5-T	98.4	90.8	P/P	50 - 150
3-Hydroxycarbofuran	118	110	P/P	60 - 150
Acetaminophen	101	98.8	P/P	60 - 160
Acetamiprid	108	108	P/P	50 - 150
Afidopyropen	93.3	98.8	P/P	50 - 150
Aldicarb	94.8	134	P/P	60 - 150
Aldicarb Sulfone	95.3	95.7	P/P	50 - 150
Aldicarb Sulfoxide	77.4	76.4	P/P	50 - 150
Bentazon	82.8	67.9	P/P	50 - 160
Benzovindiflupyr	118	112	P/P	50 - 160
Carbamazepine	110	108	P/P	60 - 150
Carbaryl	115	109	P/P	60 - 150
Carbofuran	112	111	P/P	50 - 150
Clothianidin	113	105	P/P	60 - 150
Dinotefuran	111	105	P/P	50 - 150
Diuron	115	114	P/P	60 - 160
Fenuron	103	99.0	P/P	60 - 150
Fluridone	115	106	P/P	60 - 160
Hydrocodone	108	112	P/P	60 - 150
Ibuprofen	100	90.1	P/P	50 - 160
Imazapyr	75.7	79.3	P/P	50 - 160
Imidacloprid	107	102	P/P	60 - 150
Linuron	106	102	P/P	60 - 150
Mandestrobin	109	114	P/P	50 - 150
MCPP	103	105	P/P	50 - 150
Methiocarb	96.3	92.3	P/P	50 - 150
Methomyl	90.9	87.0	P/P	50 - 150
Naproxen	73.0	102	P/P	50 - 160
Oxamyl	99.8	101	P/P	50 - 150
Primidone	99.5	94.0	P/P	60 - 150
Propoxur	105	101	P/P	50 - 150
Pyraclostrobin	112	110	P/P	60 - 150
Thiamethoxam	119	116	P/P	50 - 150
Tolfenpyrad	110	109	P/P	60 - 150
Triclopyr	103	94.1	P/P	50 - 150

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A104310

Included Lab Sample IDs: 2233508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.2	97.4	P/P	90 - 110
Antimony	94.8	95.2	P/P	90 - 110
Arsenic	96.2	95.8	P/P	90 - 110
Beryllium	95.0	94.7	P/P	90 - 110
Boron	94.4	97.4	P/P	90 - 110
Cadmium	96.4	96.9	P/P	90 - 110
Chromium	95.5	95.3	P/P	90 - 110
Copper	95.0	94.1	P/P	90 - 110
Lead	97.8	97.7	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A104310

Included Lab Sample IDs: 2233508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	96.0	93.6	P/P	90 - 110
Selenium	95.7	95.5	P/P	90 - 110
Silver	94.3	95.1	P/P	90 - 110
Thallium	103	103	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A104313

Included Lab Sample IDs: 2233505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	95.2		P	80 - 120
Toxaphene	94.9		P	80 - 120

Reference Method: EPA 8270E

Run ID: A104325

Included Lab Sample IDs: 2233505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Alpha-BHC	99.3		P	80 - 120
Alpha-Chlordane	97.9		P	80 - 120
Beta-BHC	105		P	80 - 120
Beta-Cyfluthrin	115		P	80 - 120
Bifenthrin	94.9		P	80 - 120
Chlorothalonil	106		P	80 - 120
Cis-Nonachlor	96.2		P	80 - 120
Cypermethrin	92.8		P	80 - 120
Dacthal	99.1		P	80 - 120
DDD-p,p'	101		P	80 - 120
DDE-p,p'	101		P	80 - 120
DDT-p,p'	99.8		P	80 - 120
Delta-BHC	107		P	80 - 120
Deltamethrin	90.9		P	80 - 120
Dichlobenil	97.4		P	80 - 120
Dicofol	100		P	80 - 120
Endosulfan I	97.1		P	80 - 120
Endosulfan II	102		P	80 - 120
Endosulfan Sulfate	99.6		P	80 - 120
Endrin	95.2		P	80 - 120
Endrin Aldehyde	109		P	80 - 120
Endrin Ketone	96.6		P	80 - 120
Esfenvalerate	90.2		P	80 - 120
Ethalfuralin	98.8		P	80 - 120
Fenpropathrin	95.1		P	80 - 120
Gamma-BHC	101		P	80 - 120
Gamma-Chlordane	96.8		P	80 - 120
Heptachlor	93.8		P	80 - 120
Heptachlor Epoxide	97.9		P	80 - 120
Hexachlorobenzene	98.2		P	80 - 120
Lambda-Cyhalothrin	88.0		P	80 - 120
Methoxychlor	100		P	80 - 120
MGK-264	97.8		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A104325
Included Lab Sample IDs: 2233505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Mirex	100		P	80 - 120
Permethrin	89.5		P	80 - 120
Phenothrin	89.5		P	80 - 120
Piperonyl Butoxide	100		P	80 - 120
Prallethrin	93.7		P	80 - 120
Tau-Fluvalinate	97.2		P	80 - 120
Tetramethrin	99.2		P	80 - 120
Trans-Nonachlor	98.3		P	80 - 120
Triclosan Methyl	100		P	80 - 120
Trifluralin	97.0		P	80 - 120

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A104335
Included Lab Sample IDs: 2233468, 2233471

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	105	104	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Run ID: A104344
Included Lab Sample IDs: 2233508

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	104	101	P/P	90 - 110
Calcium	101	102	P/P	90 - 110
Iron	102	103	P/P	90 - 110
Magnesium	100	101	P/P	90 - 110
Manganese	102	99.7	P/P	90 - 110
Potassium	98.3	101	P/P	90 - 110
Sodium	95.8	98.0	P/P	90 - 110
Zinc	107	104	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A104352
Included Lab Sample IDs: 2233501, 2233502, 2233503, 2233504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	155	144	P/P	40 - 160
AMPA	114	115	P/P	40 - 160
Endothall	99.6	89.7	P/P	40 - 160
Glufosinate	129	120	P/P	40 - 160
Glyphosate	152	158	P/P	40 - 160

Reference Method: SM 5310 B-2011
Run ID: A104385
Included Lab Sample IDs: 2233468, 2233471

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.1	98.4	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A104405
Included Lab Sample IDs: 2233505

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aldrin	101		P	80 - 120
Dieldrin	97.9		P	80 - 120
Kepone	107		P	80 - 120

Reference Method: EPA 8270E
Run ID: A104413
Included Lab Sample IDs: 2233506

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetochlor	100		P	80 - 120
Alachlor	104		P	80 - 120
Ametryn	112		P	80 - 120
Atrazine	96.8		P	80 - 120
Atrazine Desethyl	102		P	80 - 120
Azinphos Methyl	91.9		P	80 - 120
Azoxystrobin	107		P	80 - 120
Bromacil	100		P	80 - 120
Butylate	98.0		P	80 - 120
Caffeine	92.4		P	80 - 120
Carbophenothion	94.2		P	80 - 120
Carfentrazone Ethyl	94.9		P	80 - 120
Chlorpyrifos Ethyl	97.6		P	80 - 120
Chlorpyrifos Methyl	97.4		P	80 - 120
Cyanazine	104		P	80 - 120
Demeton	95.1		P	80 - 120
Diazinon	101		P	80 - 120
Difenoconazole	97.6		P	80 - 120
Dimethenamid	99.5		P	80 - 120
Disulfoton	95.3		P	80 - 120
Dithiopyr	100		P	80 - 120
EPTC	97.9		P	80 - 120
Ethion	96.0		P	80 - 120
Ethoprop	95.9		P	80 - 120
Fenamiphos	99.8		P	80 - 120
Fenbuconazole	105		P	80 - 120
Fipronil	96.0		P	80 - 120
Fipronil Desulfinyl	101		P	80 - 120
Fipronil Sulfide	99.9		P	80 - 120
Fipronil Sulfone	103		P	80 - 120
Fluazifop-P-butyl	98.1		P	80 - 120
Fludioxonil	99.5		P	80 - 120
Flumioxazin	98.9		P	80 - 120
Flutolanil	101		P	80 - 120
Fluxapyroxad	97.4		P	80 - 120
Fonofos	103		P	80 - 120
Hexazinone	116		P	80 - 120
Imazalil	104		P	80 - 120
Iprodione	100		P	80 - 120
Malathion	90.4		P	80 - 120
Metalaxyl	103		P	80 - 120
Metolachlor	107		P	80 - 120

Quality Assurance Report Calibration Verification

Reference Method: EPA 8270E
Run ID: A104413
Included Lab Sample IDs: 2233506

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Metribuzin	98.6		P	80 - 120
Mevinphos	100		P	80 - 120
Molinate	97.9		P	80 - 120
Myclobutanil	99.3		P	80 - 120
Naled	102		P	80 - 120
Norflurazon	113		P	80 - 120
Oxadiazon	102		P	80 - 120
Oxyfluorfen	97.1		P	80 - 120
Parathion Ethyl	99.0		P	80 - 120
Parathion Methyl	100		P	80 - 120
Pendimethalin	102		P	80 - 120
Phorate	96.3		P	80 - 120
Prodiamine	98.6		P	80 - 120
Prometon	100		P	80 - 120
Prometryn	101		P	80 - 120
Pronamide	100		P	80 - 120
Propiconazole	103		P	80 - 120
Pyriproxyfen	103		P	80 - 120
Simazine	104		P	80 - 120
Sulfentrazone	104		P	80 - 120
Tebuconazole	101		P	80 - 120
Terbufos	98.4		P	80 - 120
Terbuthylazine	98.0		P	80 - 120

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A104453
Included Lab Sample IDs: 2233468, 2233471

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.3	97.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A104465
Included Lab Sample IDs: 2233468, 2233471

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.9	98.0	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A104508
Included Lab Sample IDs: 2233501, 2233502, 2233503, 2233504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	95.4	96.5	P/P	60 - 160

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						2.29	
EPA 200.7 Rev. 4.4	Barium	103		104	104			0.0173
	Calcium	106		107	106			0.940
	Iron	106		107	105			1.70
	Magnesium	106		107	105			1.70
	Manganese	100		102	103			0.312
	Potassium	99.2		101	98.8			1.62
	Sodium	101		103	99.0			2.43
	Zinc	102		105	105			0.296
EPA 200.8 Rev. 5.4	Aluminum	93.3		90.9	93.1			1.85
	Antimony	97.1		94.8	95.8			1.03
	Arsenic	95.6		93.1	93.3			0.230
	Beryllium	88.5		87.2	88.6			1.57
	Boron	94.0		95.0	95.8			0.704
	Cadmium	97.0		95.2	95.4			0.228
	Chromium	93.6		92.9	94.3			1.58
	Copper	95.6		93.5	95.9			2.61
	Lead	96.9		96.1	96.6			0.507
	Nickel	93.1		91.4	92.0			0.638
	Selenium	94.3		91.8	91.9			0.0975
	Silver	97.8		95.4	95.2			0.279
	Thallium	102		103	103			0.482
EPA 300.0 Rev. 2.1	Chloride	101		101	100			0.249
	Sulfate	100		99.7	98.7			0.862
EPA 350.1 Rev. 2.0	Ammonia-N	97.8		98.8	99.8			0.601
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103					18.5	
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	103		100	101			0.496
	NO ₂ NO ₃ -N	104		102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	107		105	105			0.0226
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5		100	102			1.20
EPA 8270E	Acetochlor	90.1	92.5	80.7	88.0	2.57		8.64
	Alachlor	87.9	93.5	80.5	81.4	6.18		1.09
	Aldrin	38.5	39.6	51.5	54.3	2.80		5.24
	Alpha-BHC	78.7	83.2	80.2	78.0	5.62		2.78
	Alpha-Chlordane	75.8	84.1	78.1	78.1	10.5		0.0717
	Ametryn	70.2	82.4	78.0	77.3	16.0		0.803
	Atrazine	89.4	91.2	81.0	85.6	2.02		4.80
	Atrazine Desethyl	90.7	91.8	77.8	83.2	1.18		6.72
	Azinphos Methyl	94.8	118	94.0	105	22.2		11.4
	Azoxystrobin	104	157	126	125	40.4		0.824
	Beta-BHC	89.6	93.1	94.0	102	3.88		7.98
	Beta-Cyfluthrin	110	123	109	105	11.3		4.09
	Bifenthrin	74.4	88.7	81.0	76.4	17.5		5.81
	Bromacil	80.3	89.3	76.7	76.0	10.6		0.941
	Butylate	51.4	50.7	37.4	35.0	1.26		6.66
	Caffeine	87.9	98.7	107	103	11.6		3.59
	Carbophenothion	84.5	94.6	75.3	75.8	11.3		0.724
	Carfentrazone Ethyl	81.6	94.4	76.3	77.8	14.6		1.88
	Chlorothalonil	124	126	122	119	2.11		2.02
	Chlorpyrifos Ethyl	96.9	88.8	75.5	73.7	8.73		2.41
	Chlorpyrifos Methyl	90.2	91.7	76.8	79.5	1.62		3.50
	Cis-Nonachlor	81.5	90.7	81.9	84.0	10.6		2.57
	Cyanazine	103	113	102	109	9.34		6.37
	Cypermethrin	87.3	100	92.1	88.0	13.6		4.46

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		LCS	Precision SMP	MS
EPA 8270E	Dacthal	87.7	93.3	90.7	91.7	6.22		1.18
	DDD-p,p'	85.6	94.4	85.9	87.9	9.79		2.33
	DDE-p,p'	74.4	85.4	76.8	80.4	13.9		4.59
	DDT-p,p'	72.6	79.7	73.0	71.4	9.42		2.26
	Delta-BHC	124	130	138	143	4.85		4.00
	Deltamethrin	90.9	99.7	96.8	91.6	9.14		5.51
	Demeton	80.5	81.0	71.0	75.3	0.635		5.89
	Diazinon	85.7	89.3	83.4	87.2	4.11		4.54
	Dichlobenil	52.4	52.1	46.3	45.2	0.571		2.33
	Dicofol	99.3	103	99.0	95.1	3.17		4.04
	Dieldrin	66.4	71.2	71.6	68.4	7.06		4.58
	Difenoconazole	94.2	135	117	113	35.7		3.50
	Dimethenamid	85.3	85.9	79.2	81.7	0.780		3.07
	Disulfoton	88.0	85.5	70.0	70.4	2.96		0.623
	Dithiopyr	78.4	84.0	70.9	74.6	6.86		5.10
	Endosulfan I	83.0	87.8	88.4	87.5	5.61		1.01
	Endosulfan II	103	112	95.5	100	8.56		5.01
	Endosulfan Sulfate	99.2	102	98.9	96.5	2.76		2.50
	Endrin	83.7	87.3	87.0	88.3	4.24		1.53
	Endrin Aldehyde	98.5	109	106	110	10.5		3.50
	Endrin Ketone	89.7	94.9	93.5	90.7	5.67		3.03
	EPTC	59.6	51.4	34.7	33.3	14.7		4.09
	Esfenvalerate	69.6	85.3	77.2	74.6	20.2		3.46
	Ethalfuralin	70.5	76.5	71.6	68.2	8.10		4.92
	Ethion	83.7	91.1	72.6	69.1	8.47		4.97
	Ethoprop	81.1	80.9	74.8	80.2	0.264		6.95
	Fenamiphos	84.3	99.9	45.8	49.7	16.9		8.19
	Fenbuconazole	47.6	59.5	58.4	53.6	22.3		8.48
	Fenpropathrin	88.7	98.8	87.7	89.5	10.8		2.04
	Fipronil	82.2	93.1	75.9	76.6	12.4		0.842
	Fipronil Desulfinyl	80.1	86.5	66.7	67.6	7.72		1.27
	Fipronil Sulfide	93.2	85.6	64.9	77.6	8.47		17.8
	Fipronil Sulfone	89.3	92.5	72.5	85.2	3.56		16.2
	Fluazifop-P-butyl	84.8	91.3	79.6	79.2	7.31		0.532
	Fludioxonil	99.4	104	92.7	96.5	4.07		3.95
	Flumioxazin	112	159	141	141	34.2		0.493
	Flutolanil	73.6	87.9	62.4	59.9	17.7		3.82
	Fluxapyroxad	70.7	87.7	69.2	69.5	21.4		0.324
	Fonofos	83.2	82.1	70.8	77.1	1.35		8.54
	Gamma-BHC	89.5	92.7	96.9	98.7	3.52		1.78
	Gamma-Chlordane	71.3	80.2	73.9	74.3	11.7		0.473
	Heptachlor	62.2	69.6	63.8	57.4	11.2		10.6
	Heptachlor Epoxide	80.0	86.4	82.0	82.0	7.68		0.0842
	Hexachlorobenzene	61.8	68.3	62.2	60.0	9.90		3.61
	Hexazinone	97.5	103	97.1	92.8	5.83		4.54
	Imazalil	113	105	100	111	7.27		10.4
	Iprodione	86.7	101	80.1	85.3	15.0		6.29
	Kepone	107	113	104	101	5.33		2.03
	Lambda-Cyhalothrin	86.6	100	95.2	92.0	14.8		3.48
	Malathion	103	113	84.5	87.0	8.67		2.88
	Metalaxyl	88.7	90.8	80.7	81.3	2.44		0.710
	Methoxychlor	87.6	92.0	85.5	82.5	4.84		3.65
	Metolachlor	91.0	90.5	88.8	85.6	0.577		3.61
	Metribuzin	90.4	90.0	87.2	84.3	0.463		3.36

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery		MS % Recovery		Precision	
						LCS	SMP
EPA 8270E	Mevinphos	82.9	85.4	81.0	90.0	3.02	10.5
	MGK-264	65.3	70.9	77.5	77.4	8.30	0.0555
	Mirex	61.1	73.6	67.4	67.0	18.6	0.732
	Molinate	66.5	61.1	55.6	58.5	8.53	5.06
	Myclobutanil	81.6	85.6	73.9	76.8	4.81	3.81
	Naled	53.2	52.9	46.1	53.4	0.481	14.6
	Norflurazon	85.1	102	91.6	94.2	17.8	2.87
	Oxadiazon	107	98.8	65.4	64.1	7.97	1.60
	Oxyfluorfen	102	109	98.2	99.3	6.75	1.09
	Parathion Ethyl	84.9	91.4	78.9	79.6	7.39	0.890
	Parathion Methyl	96.5	99.5	83.0	86.2	3.04	3.80
	Pendimethalin	86.0	84.9	79.3	79.3	1.33	0.0934
	Permethrin	71.5	83.4	75.8	73.0	15.4	3.75
	Phenothrin	51.3	64.2	64.4	63.8	22.4	0.902
	Phorate	75.1	80.9	67.3	69.0	7.44	2.43
	Piperonyl Butoxide	103	108	103	100	5.21	2.40
	Prallethrin	67.7	74.8	67.3	71.1	9.95	5.57
	Prodiamine	62.0	59.9	60.5	61.5	3.35	1.70
	Prometon	78.8	85.1	78.8	80.3	7.76	1.87
	Prometryn	79.7	90.4	74.0	74.2	12.6	0.245
	Pronamide	90.0	96.6	105	95.6	7.03	8.97
	Propiconazole	75.1	88.7	79.4	77.9	16.6	1.94
	Pyriproxyfen	78.2	90.1	78.9	83.1	14.1	5.24
	Simazine	97.4	92.4	78.5	85.4	5.29	8.40
	Sulfentrazone	71.8	90.4	79.5	79.9	22.9	0.513
	Tau-Fluvalinate	95.0	109	99.7	97.9	13.5	1.85
	Tebuconazole	64.4	69.0	59.3	47.6	6.90	21.9
	Terbufos	86.9	84.0	73.1	80.1	3.34	9.18
	Terbuthylazine	91.1	94.4	82.7	82.8	3.59	0.134
	Tetramethrin	95.8	106	94.5	93.0	10.5	1.57
	Trans-Nonachlor	74.6	84.2	77.0	77.9	12.1	1.26
	Triclosan Methyl	91.4	100	92.5	95.7	8.95	3.45
	Trifluralin	70.7	77.0	70.9	69.3	8.55	2.40
EPA 8276	Chlordane	99.3	106	106	85.6	6.36	20.2
	Toxaphene	81.5	78.8	88.4	85.3	3.34	3.62
EPA 8321B	2,4-D	126		112	98.8		12.1
	2,4,5-T	96.7		104	97.7		5.77
	3-Hydroxycarbofuran	117		105	99.3		5.21
	Acesulfame K	139		198	211		6.12
	Acetaminophen	203		108	98.9		8.43
	Acetamiprid	83.0		93.9	75.5		21.7
	Afidopyropen	70.3		80.5	64.6		21.8
	Aldicarb	105		92.8	100		7.73
	Aldicarb Sulfone	99.2		107	111		3.68
	Aldicarb Sulfoxide	90.9		39.0	39.6		1.57
	AMPA	115		114	136		17.4
	Bentazon	62.6		36.4	37.6		3.25
	Benzovindiflupyr	86.8		91.8	81.8		11.5
	Carbamazepine	91.1		75.9	74.6		1.75
	Carbaryl	87.0		57.4	64.3		11.3
	Carbofuran	92.4		72.2	72.5		0.447
	Clothianidin	93.6		83.2	96.8		15.1
	Dinotefuran	82.0		120	113		5.98
	Diuron	68.1		53.1	48.9		8.12

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Endothall	89.0	80.8	77.0		4.83
	Fenuron	87.9	67.5	65.6		2.80
	Fluridone	79.5	84.5	68.2		21.4
	Glufosinate	101	104	103		0.584
	Glyphosate	80.1	63.7	67.4		5.70
	Hydrocodone	91.3	99.5	96.2		3.36
	Ibuprofen	80.2	82.8	71.7		14.4
	Imazapyr	78.9	93.7	83.8		5.74
	Imidacloprid	103	152	142		7.06
	Linuron	67.1	61.9	56.1		9.67
	Mandestrobin	85.2	91.4	82.9		9.80
	MCPPP	110	103	94.5		8.54
	Methiocarb	66.2	56.8	59.7		4.93
	Methomyl	91.1	73.0	82.2		11.8
	Naproxen	62.8	58.5	48.2		19.3
	Oxamyl	112	106	103		3.38
	Primidone	91.1	102	97.6		4.40
	Propoxur	85.7	67.1	69.0		2.70
	Pyraclostrobin	78.8	86.9	76.6		12.6
	Sucralose	101	97.9	99.4		1.49
	Thiamethoxam	99.4	135	127		5.64
	Tolfenpyrad	44.4	55.5	55.3		0.337
	Triclopyr	111	117	107		8.82
SM 2120 B-2011	Color (true)	99.2			1.06	
SM 2320 B-2011	Total Alkalinity	101			1.33	
SM 2540 C-2011	TDS				6.06	
SM 4500 F-C-2011	Fluoride	98.3	98.5	98.5		0.0
SM 5310 B-2011	Organic Carbon	94.5	99.2	99.2		0.0271

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2233467, 2233470
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2233508
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2233508
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2233467, 2233470
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2233467, 2233470
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2233468, 2233471
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2233468, 2233471
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2233468, 2233471
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2233468, 2233471
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2233469, 2233472
EPA 8270E	Dieldrin (ultra low level) in water matrices by GC/MS/MS	2233505
EPA 8270E	Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS-SIM	2233505
EPA 8270E	Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS	2233506
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2233505
EPA 8321B	Carbamates in water matrices by HPLC/MS/MS	2233500
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2233501, 2233502, 2233503, 2233504
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2233501, 2233502, 2233503, 2233504
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2233467, 2233470

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2233467, 2233470
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2233508
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2233467, 2233470
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2233467, 2233470
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2233467, 2233470
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2233468, 2233471

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	03/24/2021			03/24/2021 15:19	Blanca Fach	2233467, 2233470
EPA 200.7 Rev. 4.4	03/24/2021	03/24/2021 16:30	Elliott D. Healy	03/29/2021 21:45	Josef B Mick	2233508
EPA 200.8 Rev. 5.4	03/24/2021	03/24/2021 16:30	Elliott D. Healy	03/26/2021 18:26	Alexander Thompson	2233508
EPA 300.0 Rev. 2.1	03/24/2021			03/25/2021 22:29	Lipi Saha	2233467
	03/24/2021			03/25/2021 22:42	Lipi Saha	2233470
EPA 350.1 Rev. 2.0	03/24/2021			04/03/2021 12:26	Ping Hua	2233468
	03/24/2021			04/03/2021 12:27	Ping Hua	2233471
EPA 351.2 Rev. 2.0	03/24/2021	04/01/2021 12:36	Benjamin T. Nordmann	04/02/2021 11:25	Virginia P. Brown	2233468
	03/24/2021	04/01/2021 12:36	Benjamin T. Nordmann	04/02/2021 11:26	Virginia P. Brown	2233471
EPA 353.2 Rev. 2.0	03/24/2021			03/25/2021 10:01	Beverly Y. Sanders	2233468
	03/24/2021			03/25/2021 10:08	Beverly Y. Sanders	2233471
EPA 365.1 Rev. 2.0	03/24/2021	03/26/2021 12:49	Yen Ta	03/29/2021 14:53	Shengyu Ding	2233468
	03/24/2021	03/26/2021 12:49	Yen Ta	03/29/2021 14:54	Shengyu Ding	2233471
EPA 365.1 Rev. 2.0 dissolved	03/24/2021			03/24/2021 14:53	Patrick M. Roche	2233469
	03/24/2021			03/24/2021 15:27	Patrick M. Roche	2233472
EPA 8270E	03/24/2021	03/25/2021 08:00	Fe-Val Siddell	03/27/2021 00:36	Arthur Maknenko	2233505
	03/24/2021	03/25/2021 08:00	Fe-Val Siddell	03/31/2021 18:18	Michael Poppell	2233505
	03/24/2021	03/29/2021 08:00	Rasheda Ghaffari	03/31/2021 15:32	Vandana T. Nagar	2233506
EPA 8276	03/24/2021	03/25/2021 08:00	Fe-Val Siddell	03/27/2021 08:47	Julie Wi	2233505
EPA 8321B	03/24/2021	03/25/2021 09:00	Hoor Shaik	03/27/2021 06:13	Juyoung Kim	2233501
	03/24/2021	03/25/2021 09:00	Hoor Shaik	03/27/2021 06:48	Juyoung Kim	2233502
	03/24/2021	03/25/2021 09:00	Hoor Shaik	03/27/2021 07:22	Juyoung Kim	2233503
	03/24/2021	03/25/2021 09:00	Hoor Shaik	03/27/2021 07:57	Juyoung Kim	2233504
	03/24/2021	03/26/2021 10:30	Rebecca Ware	03/26/2021 14:59	Rebecca Ware	2233501
	03/24/2021	03/26/2021 10:30	Rebecca Ware	03/26/2021 15:13	Rebecca Ware	2233502
	03/24/2021	03/26/2021 10:30	Rebecca Ware	03/26/2021 15:27	Rebecca Ware	2233503
	03/24/2021	03/26/2021 10:30	Rebecca Ware	03/26/2021 15:40	Rebecca Ware	2233504
	03/24/2021	03/26/2021 10:30	Rebecca Ware	04/05/2021 15:52	Rebecca Ware	2233501
	03/24/2021	03/26/2021 10:30	Rebecca Ware	04/05/2021 16:04	Rebecca Ware	2233502
	03/24/2021	03/26/2021 10:30	Rebecca Ware	04/05/2021 16:16	Rebecca Ware	2233503
	03/24/2021	03/26/2021 10:30	Rebecca Ware	04/05/2021 16:28	Rebecca Ware	2233504
	03/24/2021	03/29/2021 10:00	Hoor Shaik	03/29/2021 17:36	Juyoung Kim	2233500
SM 2120 B-2011	03/24/2021			03/24/2021 15:54	Benjamin T. Nordmann	2233467
	03/24/2021			03/24/2021 15:55	Benjamin T. Nordmann	2233470
SM 2320 B-2011	03/24/2021			03/25/2021 21:34	Dale L. Simmons	2233467
	03/24/2021			03/25/2021 21:45	Dale L. Simmons	2233470
SM 2340B	03/24/2021			03/29/2021 21:45	Josef B Mick	2233508
SM 2540 C-2011	03/24/2021			03/26/2021 15:08	Yijie Li	2233467, 2233470
SM 2540 D-2011	03/24/2021			03/26/2021 15:08	Yijie Li	2233467, 2233470
SM 4500 F-C-2011	03/24/2021			03/25/2021 21:34	Dale L. Simmons	2233467

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-2011	03/24/2021			03/25/2021 21:45	Dale L. Simmons	2233470
SM 5310 B-2011	03/24/2021			03/31/2021 00:09	Madeline Gruver	2233468
	03/24/2021			03/31/2021 00:26	Madeline Gruver	2233471